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Kirkland Lake Regional Resident Geologist Report:
Kirkland Lake and Sudbury Districts

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ONTARIO GEOLOGICAL SURVEY

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Kirkland Lake and Sudbury Districts

by

G. Meyer, M. Cosec, G.P.B. Grabowski, D.L. Guindon, E.C. Chaloux and J.M. Stewart

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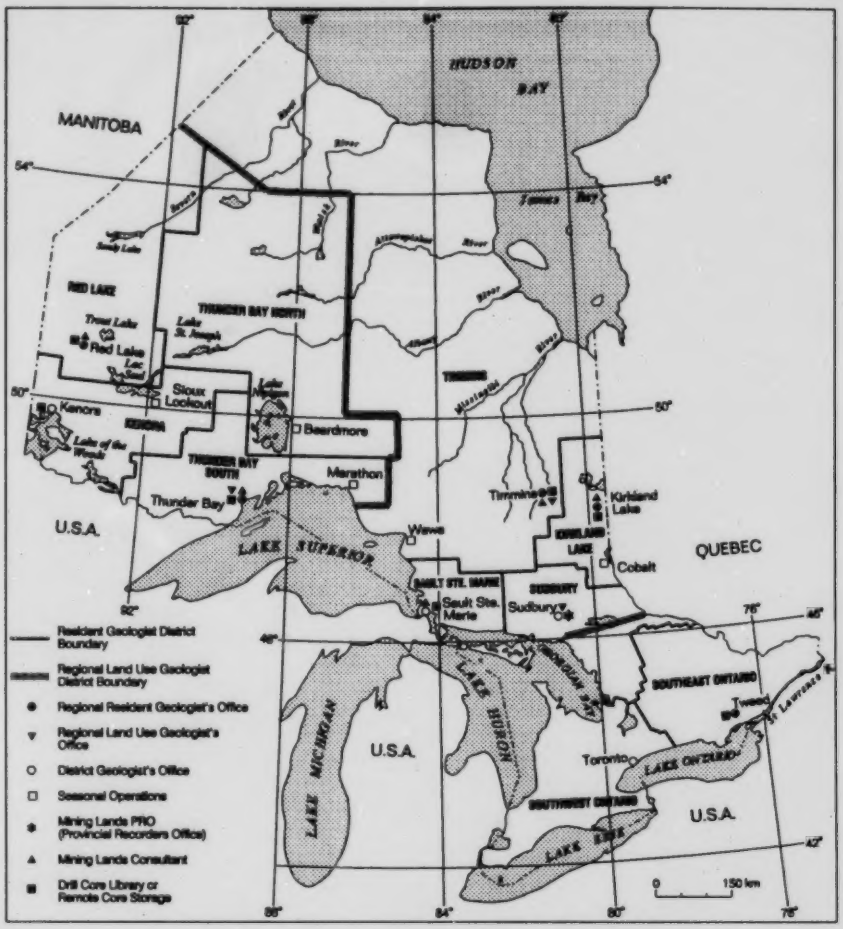

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ONTARIO GEOLOGICAL SURVEY

RESIDENT GEOLOGIST PROGRAM

REPORT OF ACTIVITIES - 2001

KIRKLAND LAKE REGIONAL RESIDENT GEOLOGIST REPORT

CONTENTS

1. Kirkland Lake District

2. Sudbury District

Ontario

Ontario Geological Survey
Regional Resident Geologist Program

Kirkland Lake Regional Resident Geologist (Kirkland Lake District)–2001

by

G. Meyer, G.P.B. Grabowski, D.L. Guindon and E.C. Chaloux

2002

CONTENTS

Kirkland Lake Regional Resident Geologist District–2001

INTRODUCTION 1
MINING AND MILLING ACTIVITY – PRECIOUS METALS 2
Barrick Gold Corporation – Holt-McDermott Mine 2
Canmine Resources Corporation 2
Exall Resources Limited and Glimmer Resources Inc. – Glimmer Mine 3
Foxpoint Resources Ltd. 3
Kinross Gold Corporation – Kirkland Lake Operation 3
Newmont Mining Corporation and Teddy Bear Valley Mines Limited – Holloway Mine 4
PolyMet Resources Inc. 4
SMC (Canada) Ltd. – McAlpine Mill 4
MINING ACTIVITY – INDUSTRIAL MINERALS 4
Extender Minerals of Canada Ltd. 4
Miller Minerals Limited – Bucke Quarry 5
ADVANCED EXPLORATION 5
Armistice Resources Ltd. – McGarry Township 5
EXPLORATION AND PROPERTY ACQUISITIONS 5
Black Pearl Minerals Consolidated Inc. – Bannockburn Township Property 5
Boulder Mining Corporation – WALP (Gold) and WALP (Kimberlite) 5
Canadian Arrow Mines Limited- Midlothian Township Property 6
Emporio Explorations Corporation – Whitney Lake Property 6
Globex Mining Enterprises Inc. – Ramp Property 6
Goldeye Explorations Limited – LaCarte Hydro Creek Property 6
Gram Minerals Corp. – Patten River Property 6
Hucamp Mines Limited – Timiskaming Diamond Properties 7
Jonpol Explorations Limited and Aurado Exploration Ltd. – Garcon Mine Property 7
KRL Resources Corp. – Golden Sylvia and Copper Hill Properties 7
Millstream Mines Ltd. – Potter Mine Tailings 7
Mustang Minerals Corp. (JML Resources Ltd.) and Falconbridge Ltd. – Marten River Diamond Project 8
Platinova A/S – Case Pegmatite 8
Prairie C Resources Property Development – Lamprophyre Property 9
Queenston Mining Inc. – Lake Abitibi 9
Queenston Mining Inc. and Franco Nevada Mining Corporation Limited – Kirkland Lake Joint Venture 9
Strike Minerals Inc. – LaCarte Option 10
Temex Resources Corp. – Cuniptau PGE Project 10
Temex Resources Corp. – Milestone PGE Property 10
Temex Resources Corp. – Wilson Lake 10
Tres-Or Resources Ltd. – Temagami South Diamond Project 11
Tres-Or Resources Ltd. – Temagami North Diamond Project (Haileybury) 11
RESIDENT GEOLOGIST STAFF AND ACTIVITIES 11
PROPERTY EXAMINATIONS 12
Bidgood Gold Property 12
Eby Township Copper – Gold Occurrence 13
Potential "New Gold Camp" in Lake Abitibi Area: A Follow-up 13
Strike Minerals Inc. – LaCarte Option 14
RECOMMENDATIONS FOR EXPLORATION 14
Exploration for Diamonds 14
OGS ACTIVITIES AND RESEARCH BY OTHERS 17
Discover Abitibi 17
Ontario Geological Survey Activities 18

Geological Survey of Canada (GSC) 18
McMaster University 18
Mineral Exploration Research Centre, Laurentian University 18
Ottawa Carlton Geoscience Centre and University of Ottawa 19
MNDM's ABANDONED MINES PROGRAM 19
REFERENCES 19
Appendix 1. "Nipissing Diamond" 21
Appendix 2. NPA - Discover Abitibi Technical Sub-Committee Proposals 22

TABLES

1. Claims recorded and assessment work credits filed in the Larder Lake Mining Division in 2001 24
2. Mine production and reserves in the Kirkland Lake Regional Resident Geologist District in 2001 24
3. Assessment files received in the Kirkland Lake Regional Resident Geologist District in 2001 25
4. Exploration activity in the Kirkland Lake Regional Resident Geologist District in 2001 36
5. Property visits conducted by the Kirkland Lake Regional Resident Geologist and staff in 2001 37
6. Publications received by the Kirkland Lake Regional Resident Geologist office in 2001 38
7. Mineral deposits not being mined in the Kirkland Lake Regional Resident Geologist District in 2001 51
8. Summary of activities of the Kirkland Lake Regional Resident Geologist office in 2001 58
9. Gold production in the Kirkland Lake Regional Resident Geologist District in 2001 58
10. Kimberlite in the Kirkland Lake Regional Resident Geologist District in 2001 61

FIGURES

1. Mining and milling in the Kirkland Lake District in 2001 63
2. Property visits in the Kirkland Lake District in 2001 64
3. Kimberlite occurrences in the Kirkland Lake District 65

Kirkland Lake Regional Resident Geologist (Kirkland Lake District)–2001

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INTRODUCTION

The price of gold in 2001 ranged between a low of US$255.95 per ounce and a high of US$293.25 per ounce and the cumulative average was US$271.02 per ounce (www.kitco.com). A number of factors, including low gold and base metal prices, lack of investment, uncertainties regarding land use and the elimination of the OPAP and OMIP programs contributed to significantly reduce exploration activity in the Kirkland Lake Resident Geologist district.

Total gold production in 2001 from all producers in the Kirkland Lake Regional Resident Geologist District (see Mining and Milling Activity – Precious Metals in this report and Tables 2 and 9) was 6 280 772 grams of gold or 201 932 ounces of gold. This represents a decrease of 20% from 2000. Total historic gold production in the district was 41 012 429 ounces of gold recovered from 135 645 992 tons of ore plus 192 501 ounces of gold from 4 168 925 tons of tailings.

Three gold mines operated proximal to the Porcupine-Destor Deformation Zone in the Kirkland Lake Regional Resident Geologist District during 2001. These were: the Holloway Mine, owned by Newmont Mining Corporation and Teddy Bear Valley Mines Limited; the Holt-McDermott Mine, owned by Barrick Gold Corporation; and the Glimmer Mine, owned by Exall Resources Limited and Glimmer Resources Incorporated. The Glimmer Mine closed in May 2001, which resulted in the termination of custom milling at Kinross Gold Corporation's Macassa mill. Mining and milling operations in the Kirkland Lake Resident Geologist District at the end of the year directly employed approximately 430 people.

Extender Minerals of Canada Ltd. operated two underground barite-mining operations in North Williams and Yarrow townships.

Several junior mining companies recently acquired large mining claim holdings within the Timiskaming Structural Deformation Zone (TSDZ) for their diamond potential. To keep these properties in good standing and in some cases meet option agreements, extensive exploration programs are anticipated to commence in 2002 for diamond host rocks such as kimberlite and lamprophyre.

In 2001, there were approximately 80 active exploration projects in the Kirkland Lake Regional Resident Geologist District (Tables 3 and 4).

The Larder Lake Mining Division and 19 townships in the Sudbury Mining Division, with 20 419 and 5590 claim units respectively, are within the Kirkland Lake Resident Geologist District (see Table 1). One hundred and sixty six (166) Assessment Work reports were incorporated into the Assessment File system (Table 3). These reports, approved for assessment credits, total $2 888 711 in exploration expenditures. In addition, 10 donations of data representing approximately $600 000 in exploration expenditures and 35 OPAP 1999 program reports were also processed and incorporated into the Assessment File system. One hundred and thirty one (131) records of publications were added to the library database (Table 6).

MINING AND MILLING ACTIVITY – PRECIOUS METALS

Barrick Gold Corporation – Holt-McDermott Mine

In 2001, Barrick Gold Corporation's Holt-McDermott Mine in Holloway Township mined and milled 450 537 t (496 632 tons) to produce 83 577 ounces of gold. The recovered grade was 6.05 g/t Au at a mill recovery rate of 95.4%. Production cost per ounce of gold was US$156. Ore reserves, at the end of December 31, 2001, in the proven category were 115 013 t (126 780 tons) grading 6.73 g/t Au or containing 24 903 ounces of gold. In the probable category, reserves were 1 129 003 t (1 244 513 tons) of ore grading 7.38 g/t Au or containing 267 930 ounces of gold. The combined ore reserves in the proven and probable categories were 1 244 016 t (1 371 293 tons) grading 7.32 g/t Au or containing 292 834 ounces of gold. In addition, inferred resources were 749 040 t (825 675 tons) grading 8.32 g/t Au or containing 200 313 ounces of gold.

Drifting on production levels at 925 m and 1075 m advanced 96 m and 479 m, respectively. The drifts were advanced along strike with the C-104 Zone to permit definition diamond drilling. The drilling was completed and development and mining is well established on this zone. In 2001, this zone produced 47 095 t of ore grading 5.95 g/t Au. Drilling of C-104 East Extension is underway, testing inferred resources. Definition drilling was carried out on the West Zone C-97 in late 2001 from the 1025 West drift. Definition drilling increased tonnage and grade slightly. Currently the 925 Level West is being extended to provide drilling platforms and access for mining.

The company completed 8156.7 m of underground exploration diamond drilling in 27 holes and 30 065.5 m of definition diamond drilling in 316 drill holes.

Capital expenditures in 2001 were $1.2 million.

Approximately $20 000 was spent in 2000 on down-hole IP and some targets were identified. Follow-up surface drilling is scheduled for January 2002 to test some of these targets. Most IP responses are believed to be from magnetite in hanging wall rock.

In 2002, Barrick plans a surface diamond drilling program of 12 450 m, underground exploration diamond drilling of 13 200 m and underground definition diamond drilling of 44 200 m for a total of 69 850 m of drilling. The budget for the drill programs is $2.4 million.

At year-end the company employed 194 people (C. Todd, Barrick Gold Corporation, personal communication, 2002 and www.barrick.com).

Canmine Resources Corporation

Canmine Resources Corporation reported completion of construction and modification of the Canmine Refinery near Cobalt, which is scheduled for commissioning in December 2001. Canmine acquired the refinery in 1999 for producing cobalt and nickel compounds and other precious metals.

The $5.3 million modification project is managed by AMEC. Additions to the original 17 439 sq. ft. refinery facility were completed, including a 13 388 sq. ft. addition for feedstock storage and product finishing, a 2752 sq. ft. welding and maintenance shop, and a 1130 sq. ft. addition to house certain process equipment. Concurrently, work on mechanical, piping, electrical, and structural steel has proceeded, with an average of 20 people on-site. Newly ordered equipment arrived on schedule, and the plant laboratory has been retrofitted for process testing and control. New equipment installed into the laboratory includes an Atomic Absorption Spectrometer (AA), an Inductive Coupled Plasma Atomic Emission Spectrometer (ICP) and a laboratory-sized titanium autoclave.

The commissioning stage involves testing and operating of 14 major systems with water to ensure integrity and correct operation of the pumps and instrumentation. This stage will flow into a ramp-up process during the first quarter of 2002, when the plant systems are loaded through the processing of feedstock, and four shifts of plant

operators are trained for 24 hour, 7 day per week operation, as the plant builds to capacity.

The Canmine Refinery will initially create 32 permanent new jobs. It will be Canada's only producer of value-added cobalt chemical compounds. These compounds are used in the manufacture of rechargeable batteries, as additives to promote the health of livestock and pets and in a process used to reduce the sulphur content in oil (News Release, Canmine Resources Corporation, November 14, 2001 and www.canmine.com).

Exall Resources Limited and Glimmer Resources Inc. – Glimmer Mine

On May 10, 2001, production at the Glimmer Mine joint venture operations, located 8 km east of Matheson in Hislop Township, was suspended, resulting in the layoff of 83 employees. Operations ceased due to a shortage of mineable ore. Due to extremely low gold prices over the past few years, underground diamond drilling was reduced to lower costs, with the intention of resuming a full drilling program once gold prices recovered. Prices remained low and capital for the necessary reserve definition drilling was not available. The partners in the joint venture, Exall with 52% ownership and Glimmer Resources Inc. with 48% ownership, are in discussions to consolidate the operation or vend it to a third party. The intention is to raise enough capital to commence a surface and underground diamond-drilling program in order to move significant indicated resources into the mineable reserve category.

In 2001 and prior to mine closure, the Glimmer Mine, operated by Exall Resources Limited, produced 81 700 t (90 059 tons) of ore milled at Kinross Gold Corporation's Macassa mill to produce 11 895 ounces of gold. Mill recovery was 98.19% and the recovered grade was 0.132 ounce per ton Au.

Roscoe Postle Associates Inc. audited the ore reserve calculations of the operator at the end of February 2001. The Roscoe Postle study concluded that the mineable reserve to a vertical depth of 200 m was 777 982 t of ore grading 8.92 g/t Au for a contained total of 217 000 ounces of gold.

Exall Resources Limited reports consolidated financial results for the six month period ending June 30, 2001. All figures are in Canadian dollars unless otherwise stated. For the six month period ended June 30, 2001, Exall reported a net loss of $1 606 020 ($0.041 per share) on revenue of $2 572 124, compared with a net loss of $856 503 ($0.030 per share) on revenue of $10 324 943 in the corresponding period of 2000 (EXL 2001-08-29 - provided courtesy of BCE Emergis E-News Services; Glimmer Resources Inc., Press Release, May 30, 2001; Joint Press Release, Northern Daily News, June 28, 2001, p.3; www.exall.com and R.D. McCloskey, Glimmer Resources Inc., personal communication, 2002).

Foxpoint Resources Ltd.

Foxpoint Resources Ltd. raised gross proceeds of $5.85 million and completed the acquisition from Kinross Gold Corporation of the former Kinross gold mining operations in Kirkland Lake. These operations include the Macassa Mine and mill and four other historic gold mining properties: Lake Shore, Wright-Hargreaves, Teck-Hughes and Kirkland Lake Gold.

The properties are the subject of a report prepared by Roland H. Ridler, entitled *Kirkland Lake Mineral properties (Macassa Mine, Kirkland Lake Gold, Teck-Hughes, Lake Shore, Wright Hargreaves)* dated November 30, 2001 (Press Release, December 14, 2001).

Mr. Kevin Bullock was appointed to the position of Vice President, Operations of the Corporation effective November 1, 2001. Mr. Bullock, stationed in Kirkland Lake, will undertake re-commissioning of the No. 3 shaft and surface and underground exploration efforts at the Macassa Mine. Surface diamond drilling is in progress.

Kinross Gold Corporation – Kirkland Lake Operation

Ore from the Glimmer Mine was milled at Kinross Gold Corporation's Macassa mill until mining operations ceased in May 2001 at Exall Resources Limited's and Glimmer Resources Inc.'s Glimmer Mine.

Newmont Mining Corporation and Teddy Bear Valley Mines Limited – Holloway Mine

In 2001, Newmont Mining Corporation's and Teddy Bear Valley Mines Limited's Holloway Mine in Holloway Township, mined 551 963 t (608 435 tons) of ore. The ore is custom milled at Barrick Gold Corporation's Holt-McDermott mill and 552 947 t (609 520 tons) of ore produced 106 460 ounces of gold in 2001 at a recovered grade of 0.175 ounce per ton Au. Cash cost per ounce of gold was US$211. Stockpiled ore, of 54 418 t, is anticipated to contain 10 519 ounces of recoverable gold.

Proven ore reserves at the mine, on December 31, 2001, were 1 552 967 t (1 711 853 tons) grading 6.3 g/t Au or containing 314 938 ounces of gold. Probable reserves were 1.869 million t (2 060 693 tons) grading 6.695 g/t Au or containing 402 324 ounces of gold. Total reserves and probable reserves were 3 422 396 t (3 772 546 tons) grading 6.519 g/t Au or containing 717 262 ounces of gold.

During 2001, the joint venture partners completed 4430 m of drifting and 258 m of raises. Underground exploration diamond drilling totaled 2292 m and underground definition diamond drilling totaled 11 722 m in 320 holes.

Capital expenditures for the year amounted to $2.690 million.

At year-end, the mine employed 135 people (R.J. Labine, Newmont Mining Corporation, personal communication, 2002).

Newmont Canada Limited conducted exploration work in and around the Holloway Mine in Harker and Holloway townships. The work includes 350 surface geochemical samples, 32.3 km of line cutting, 13.7 km of ground magnetic surveys, 16.5 km of IP surveys, 500 m^2 of overburden stripping and 9493 m of diamond drilling in 23 holes (Henry Unger, Newmont Canada Limited, personal communication 2002).

PolyMet Resources Inc.

Polymet Resources Inc.'s assaying laboratory, bulk-sampler, processing plant and furnacing operations became fully operational in 2001. The company is making regular low-grade feedstock shipments to Noranda Inc.'s Horne smelter in Rouyn-Noranda, Quebec and precious metal bullion shipments to Johnson Matthey Ltd. in Brampton. This past year, Polymet was active in silver and gold extraction from processing slag, concentrates, plant sweeps and film cartridges. The company is now looking to expand and diversify its business to accommodate other types of feedstock, such as electronic and computer components and mill concentrates to extract silver, gold, copper and PGMs. Early in 2002, Polymet plans to add a shredder circuit, filter press, additional furnace capacity, upgrading its reactor circuit and adding an Aquasizer concentrator unit (G. Chitaroni, personal communication, 2001).

SMC (Canada) Ltd. – McAlpine Mill

SMC (Canada) Ltd., a subsidiary of Sabin Metal Corporation of East Hampton NY, operated the McAlpine mill (formerly Agnico Eagle-Mines Limited's Penn mill purchased in 1998). The mill, consisting of a 200-ton per day gravity-flotation circuit, processed material from waste electronic and microelectronic gear, jewelry, photographic and x-ray film, slag, crucibles, refractory brick and other products containing precious metals.

MINING ACTIVITY – INDUSTRIAL MINERALS

Extender Minerals of Canada Ltd.

Extender Minerals of Canada Ltd. produced approximately 12 000 t barite in 2001. The new mine, in North Williams Township, produced about 80% of the ore and the Yarrow barite mine, in Yarrow Township, about 20% of the ore milled at the Powell Township mill. Mining at the North Williams operation is via a decline ramp and the

company developed 800 feet on the second level (125 feet below surface) and completed a raise to surface. The next level, at a depth of approximately 165 feet below surface, is under development. The ore at this mine is exceptionally pure, grading 99% $BaSO_4$. In 2002, Extender Minerals plans to obtain all mill feed from the North Williams Mine. Ore reserves at the North Williams Mine exceed four years and there are some reserves remaining at the Yarrow Mine. The company employs 28 people on a year-round basis and the work force generally increases in summer (R. Hill, Extender Minerals of Canada Ltd., personal communication, 2002).

Miller Minerals Limited – Bucke Quarry

In 2001, the Miller Minerals Limited's Bucke lime and limestone production facility located on Ramsey Road, Haileybury, maintained production levels at near 40 000 t of limestone flux material, agricultural limestone, limestone aggregates, quicklime and other special lime products for environmental applications. Late in 2001, the company began to supply Enviro Lime to the Kam Kotia reclamation project near Timmins. This project is expected to continue into 2002. The company continues to monitor all private and government markets for potential new sales of lime and limestone products (T. Overton, personal communication, 2002).

ADVANCED EXPLORATION

Armistice Resources Ltd. – McGarry Township

Armistice Resources Ltd. repaired the shaft on the Armistice property in McGarry Twp. Materials can be transferred, but a final inspection is required prior to re-commissioning for personnel use (Armistice Resources press release, July 23, 2001).

EXPLORATION AND PROPERTY ACQUISITIONS

Black Pearl Minerals Consolidated Inc. – Bannockburn Township Property

Black Pearl Minerals Consolidated Inc. entered into an agreement to acquire a 100% undivided interest in 48 claim units in Bannockburn Township. The claim units are contiguous to Outokumpu Mines Inc.'s Bannockburn Township nickel discovery, which is under option to Black Pearl Minerals Consolidated (Black Pearl Minerals Consolidated Inc., News Release, February 8, 2001 - Transmitted by CCN – A Newswire Service of ITG).

Boulder Mining Corporation – WALP (Gold) and WALP (Kimberlite)

Boulder Mining Corporation announced that it has acquired an option to earn a 100% interest in four separate claim blocks (4496 ha) situated west-northwest of Lake Abitibi.

The largest claim block, WALP (Gold), covers a 10-kilometer extension of the Lake Abitibi Deformation Zone (LADZ), a prominent regional structural zone that trends between and parallel to the Porcupine-Destor Deformation Zone immediately to the south and the Casa Berardi Deformation Zone to the north. The coincidence of flexures in the LADZ and the intersection of the cross-cutting Lake Timiskaming Structural Zone directly up-ice from documented auriferous boulders and free gold in glacial deposits makes the area very prospective (Meyer et al. 2000 and 2001).

Three separate claim blocks, the WALP (kimberlite) claims, occur within the northwest trending Lake Timiskaming Structural Zone a short distance north of the WALP (Gold) property and cover four distinct "clusters" of circular magnetic anomalies that are potential kimberlite targets (News Release November 29, 2001 and www.bouldermining.com).

Canadian Arrow Mines Limited- Midlothian Township Property

Canadian Arrow Mines Limited completed a 10-hole, 2016 m diamond drilling program on the Halliday Dome project in Halliday (Timmins Resident Geologist District) and Midlothian (Kirkland Lake Resident Geologist District) townships. Analytical results were received for the first five holes. Hole MID01-01, in the Kirkland Lake District, intersected 2 pyritic zones in hydrothermally altered and brecciated felsic tuff. The upper zone returned 1174 ppm Zn over 12.9 m and the lower zone 2631 ppm Zn over 3.4 m (Canadian Arrow Mines Limited, News Releases, March 8 and April 6, 2001).

Emporio Explorations Corporation – Whitney Lake Property

Emporio Explorations Corporation optioned the Whitney Lake property from G. Chitaroni and Raven Resources Inc. The property is located in Gillies Limit Township, midway between the towns of Latchford and Temagami. The company will conduct an initial $100 000 exploration program consisting of line cutting, MaxMin HLEM, Walkmag Magnetometer, VLF-EM and Gradient and Realsection Induced Polarization (IP) surveys. The Emporio program plans to evaluate the overall strike length and depth of the Cu-Ni bearing sulphide deposits at Whitney Lake and further investigate the platinum group metals associated with the deposits (G. Chitaroni, personal communication, 2001).

Globex Mining Enterprises Inc. – Ramp Property

Globex Mining Enterprises Inc. announced that it has acquired 100% interest in the Ramp property, (also known as Argyll property) in Beatty Township, from McWatters Mining Inc. Previous work, by Maude Lake Gold Mines Inc., indicates proven, probable, possible and drill indicated gold resources above the 220 m level totaling 510 116 tons grading 0.25 ounce per ton Au. In addition, 283 358 tons of deeper drill indicated resources grading 0.24 ounce per ton Au brings the total resources to 813 414 tons grading 0.24 ounce per ton Au. Subsequent drilling by McWatters Mining Inc. between 1996 and 1999 confirmed and expanded the gold resource. Prior work consisted of extensive diamond drilling, stripping, bulk sampling, metallurgical studies, a 956.7 m decline ramp with 1008 m of cross-cuts and drifts and 207.9 m of raises. The principal gold area of the property consists of at least 7 distinct gold-bearing structures. One set of structures, known as the A Zones, are east-trending vein swarms enclosed in carbonatized, sericitized and silicified basalt. The A Veins are northeast-trending, discrete quartz-carbonate-sulphide laminated veins. Both types of vein structures are confined to northwest-trending basaltic units. To date, over $10 million has been spent on the project (Globex Mining Enterprises, News Release, August 13, 2001 and www.globexmining.com)

Goldeye Explorations Limited – LaCarte Hydro Creek Property

Goldeye Explorations Limited optioned 5 unpatented claims in Tyrrell Twp, known as the "LaCarte Hydro Creek Claims". The Hydro Creek claims cover the northwestern part of the LaCarte Gold Zone, a 450 m long by 60 m wide, southwest dipping zone of gold mineralization, which lies within the 115° striking Tyrrell Shear Zone (Goldeye Explorations Limited, News Release, September 25, 2001).

Gram Minerals Corp. – Patten River Property

Gram Minerals Corp. entered into an option agreement to acquire the 360-acre Patten River property in St. Laurent Township. Work completed by Asarco in the late 1960's showed a drill inferred geological resource of approximately 667 000 short tons with a calculated grade of 0.49% Ni and 0.41% Cu. The deepest drill intersection cut the deposit at a depth of 530 feet and returned a 58-foot true width section grading 0.43% Ni and 0.36% Cu. The deposit remains open both down dip and down plunge (Mining North, January 2001, p. 7). The Ontario Securities Commission cease trading order on November 26, 2001 continued December 10, 2001 (Reuters, Press Release, December 10, 2001).

Hucamp Mines Limited – Timiskaming Diamond Properties

Hucamp Mines Limited signed an agreement with Sudbury Contact Mines Limited on its Timiskaming diamond properties in northeast Ontario and Quebec. The properties include 38 unpatented and 2 patented claims in Ontario totaling 5236 ha, and another block located 60 km to the east consisting of 69 claims totaling 2760 ha in Quebec. The Ontario claims include four kimberlite discoveries by Sudbury Contact in 1995-96 in addition to numerous untested geophysical and geochemical anomalies. The Quebec claims are in the vicinity of the diamondiferous Guigues kimberlite pipe.

Kimberlite 95-2 (~3 ha) in Lundy Township returned 33 macrodiamonds including four stones greater than 1 mm in size, from 1104.44 kg of material processed. Two of the stones exceeded 2 mm in size, with the largest weighing 0.14 carat and described as a white, clear fragment by analytical facility Lakefield Research. A second Sudbury Contact discovery, 96-1 (~4 ha), returned 26 microdiamonds from 61.82 kg of bedrock chips recovered from the reverse circulation discovery hole, which is the only sample thus far from the kimberlite. The other two Sudbury Contact discoveries did not return diamonds from the initial holes, however the indicator mineral chemistry is sufficiently encouraging to warrant further investigation (http://www.hucampmines.com and News Release May 17, 2001).

Jonpol Explorations Limited and Aurado Exploration Ltd. – Garcon Mine Property

Jonpol Explorations Limited and Aurado Exploration Ltd. completed Phase 1 of diamond drilling to test the ultramafic/felsic volcanic sediment horizons below the Destor-Porcupine Deformation Zone and on strike of the Garcon Mine property in Garrison Township. Three holes, totaling 4275 feet, confirmed the presence of magnetite iron formation at the upper ultramafic/dacite-chert horizon and the pyritized ultramafic flow/chert tuff lower horizon. Assays for both sections were low. A 3-foot kimberlite dike was unexpectedly intersected in hole N-001-1 (Jonpol Explorations Limited and Aurado Exploration Ltd., News Release, March 7, 2001).

KRL Resources Corp. – Golden Sylvia and Copper Hill Properties

KRL Resources Corp. previously discovered 3 gold zones in the Golden Sylvia area of the Copper Hill property located in MacMurchy Township, 20 km east of Shining Tree. Geological mapping and rock chip sampling was carried out on the Golden Sylvia area of the Copper Hill property. The grid area covers approximately five square km with 222 rock samples collected for analysis.

Significant gold values hosted in the iron formation outline a minimum 400 m by 100 m gold zone. Surface rock samples returned gold values as high as 25.9 g/t Au over 1.0 m. In the 31-30 area, located three kilometers north of the iron formation, gold values in quartz veins and altered rock occur across a 250 m wide zone. Two new veins were located and returned gold values as high as 13.1 g/t Au and 7.62 g/t Au in grab samples. To the east of the 31-30 zone and north of the iron formation, a well mineralized, 5.0 m thick, quartz-rich vein was discovered and traced along trend for more than 400 m. The vein is anomalous in gold and copper with values in grab samples up to 0.75 g/t Au and 1.35% Cu.

KRL Resources Corp. has entered into an agreement with Strike Minerals Inc. to earn 100% interest, subject to a 2% net smelter return, in a 7-claim, 57-unit property located in MacMurchy and Fawcett townships, contiguous with KRL's Copper Hill property (KRL Resources Corp., News Releases, February 1 and September 17, 2001 and http://www.krl.net)).

Millstream Mines Ltd. – Potter Mine Tailings

Millstream Mines Ltd. carried out a pilot test program to evaluate the innovative proprictary Electro-Chemical Quik Leach and Membrane technologies for recovery of metals contained in its Potter Mine tailings in Munro Township.

The results were encouraging and the company is preparing a pre-feasibility and design study for the construction of a prototype processing plant capable of treating 100 plus tons per day of its Potter Mine tailings (Millstream Mines Ltd., News Releases, April 3 and October 22, 2001 and http://www.millstreammines.com/).

Mustang Minerals Corp. (JML Resources Ltd.) and Falconbridge Ltd. – Marten River Diamond Project

Mustang Minerals Corp. announced the formation of a new joint venture with Falconbridge Limited wherein Mustang will explore for diamonds in the Marten River area near North Bay. Mustang can acquire up to a 50% interest in the Marten River joint venture, which consists of 425 unpatented mining claim units in 33 discrete blocks located in 14 townships. The claim blocks were selected using geophysical and geochemical data from a $6 million kimberlite exploration program conducted across the eastern seaboard of North America by Falconbridge between 1979 and 1990.

The company controls a total of 2309 mining claim units (including the 50% joint venture interest) in the Marten River area that are prospective for diamonds. The mining claim units of the Marten River project are located in the Lake Timiskaming Structural Zone.

Previous exploration was prevented by a land caution, which prohibited claim staking and exploration. The Land Caution has since been lifted.

Key highlights of the Marten River joint venture include:

- 70 known high priority circular airborne targets cover joint venture claims,
- An airborne magnetometer database covering 36 townships (3600 km^2),
- 1253 geochemical samples of which 982 (78%) contained kimberlite indicator minerals (KIMs). Several geochemical samples contain over 200 KIMs. Four KIM–rich samples contained 88% G-9's and 10% G-10 garnets. Many of the KIM-bearing samples are correlated to magnetic anomalies,
- and the property lies at the juxtaposition of three major structural events: the Lake Timiskaming Structural Zone, the Grenville Front Tectonic Zone and the Ottawa-Bonnechere Graben.

Mustang's interests in the Marten River properties were subsequently transferred to "spin-off" company JML Resources Ltd. (Mustang Minerals Corp., News Release, September 11 & November 1, 2001 and www.mustangminerals.com)

Platinova A/S – Case Pegmatite

Platinova A/S acquired the Case pegmatite property, comprised of 47 claim units, located in Steele Township. Three known pegmatite bodies have been exposed by stripping over a length of about 350 m with widths of up to 35 m at surface by the property vendor.

Platinova's program of surface channel sampling and diamond drilling has confirmed three continuous tantaliferous zones. The tantaliferous zones at the Case project occur within pegmatite dikes over a tested strike length of 150 m and a maximum tested depth of 70 m. The zones are both open along strike and down dip and are amenable to open pit mining. Two parallel, well-zoned pegmatite dikes occur within a large granitic body on the property. The dikes have an east west strike and dip about 60° to the north. The North Dike is up to 10 m wide and has been traced on surface over 110 m. The Main Dike is up to 30 m wide and has been traced on surface over 300 m. The Main Dike has a barren quartz-rich core, which varies in thickness up to 10 m and splits the tantaliferous zone in two. In the North Dike, the quartz core varies from 0 to 2 m. The two dikes are separated by 15 to 20 m of granite and extend in both directions under overburden cover.

In total, 10 intersections (three saw cuts and seven drill cuts) were obtained from the Main Dike extending over 150 m and to depths of 70 m below surface on 30 m spaced sections. The combined tantalum-rich portions (minus the internal barren zone) on each intersection vary from 5.5 to 12.9 m wide. The average of each mineralized intersection in the Main Zone was 0.024% Ta_2O_5 over an average drill core length of 8.8 m (not including the barren zone).

In total, 7 intersections (2 diamond saw cuts and 5 diamond drill cuts) were obtained from the North Dike extending over 120 m of strike and to depths of 35 m below surface on 30 m spaced sections. The grade of mineralized intersections and diamond saw cuts varies from 0.011% Ta_2O_5 over 1.0 m to 0.032% over 7.7 m.

The average of all the mineralized intersections in the North Dike is 0.035% Ta_2O_5 over an average 4.5 m. The average of all mineralized intersections in both dikes is 0.027% Ta_2O_5.

The next phase of investigation will determine the effectiveness of simple gravity concentration methods to recover the tantalum mineralization, which visually consists of columbite-tantalite. On successful completion of these tests, a program of definition drilling will be undertaken in order to determine an ore reserve (Platinova A/S, News Releases, August 15, 2001 and Oct. 4, 2001 and www.platinova.com).

Prairie C Resources Property Development – Lamprophyre Property

Prospectors Simon Wareing and Murray Simpson of Prairie C Resources Property Development, had a sample of lamprophyre processed by Kennecott Canada Exploration's lab in Thunder Bay. Three micro-diamonds were recovered from the 18 kg sample, collected in Lorrain Township. The lamprophyre is visually similar to the Sandor dike in the Wawa area (North Bay Nugget, June 13, 2001 and Northern Daily News, June 19, 2001).

Queenston Mining Inc. – Lake Abitibi

Queenston Mining Inc. completed staking of 765 contiguous claim units covering the northwest part of Lake Abitibi. The 100% owned, 12 000 ha property covers an area where the Ontario Geological Survey has recently recognized and reported the potential for a new gold camp (Meyer et al. 2000 and 2001 and Queenston Mining Inc. News Release, April 12, 2001 and http://www.queenston.ca/).

Queenston Mining Inc. and Franco Nevada Mining Corporation Limited – Kirkland Lake Joint Venture

Queenston Mining Inc. and Franco-Nevada Mining Corporation Limited completed a five hole, 1859 m diamond drilling program in Lebel Township. The program objective was to evaluate the "180 Splay" with two holes and the South Break with three holes. The "180 Splay" is interpreted to be about 2.5 km long and 250 m south of the "180 East" zone. The "South Break" is located about 700 m south and sub-parallel to the Larder Lake Deformation Zone. Assay results from the holes intersecting the South Break were anomalous but subeconomic. Diamond drill holes MU-12 and MU-16 tested the "180 Splay" structure near the 2000 discovery hole MU-11, which intersected a 346 m wide zone of alteration in the "180 Splay" including a 66.4 m section assaying 0.53 g/t Au. Hole MU-12 was drilled 168 m north of MU-11 to determine the dip of the "180 Splay" mineralization. It intersected similar deformation and mineralization assaying 0.61 g/t Au across 20.2 m. Within this section the best interval is 1.84 g/t Au over 4.4 m including 7.27 g/t Au over 0.6 m. Hole MU-16 was a step-out test along the "180 Splay" structure, 240 m east of MU-12. This hole intersected a similar, broad zone of mineralization assaying 0.52 g/t Au over 70.6 m, including sections of 0.93 g/t Au over 9.5 m and 3.88 g/t Au over 1.6 m. Results of the new drilling, combined with the re-logging of historical holes in the area suggest that the "180 Splay" mineralization may be part of a large gold system that includes the "180 East" and "Biroco" gold zones. This system measures 1500 m long, 600 m wide, 20 to 70 m thick and remains open along strike and down dip. Although the new drilling has intersected generally wide zones of low-grade gold mineralization, a series of 1988 diamond drill holes completed by INCO Limited on the "180 East" zone report higher intersections including 6.72 g/t Au over 8.5 m, 4.56 g/t Au over 10.4 m and 11.59 g/t Au over 1.8 m (Queenston Mining Inc., News Release, June 20, 2001 and www.queenston.ca).

Strike Minerals Inc. – LaCarte Option

Strike Minerals Inc. completed a diamond drill program on its 17 claim LaCarte Group in Tyrrell Township. Several gold mineralized structures were discovered during Hwy 560 reconstruction. Grab samples taken from the new zone assayed as high as 9.4 g/t Au (Northern Daily News, August 14, 2001).

Strike Minerals Inc. acquired two additional mining claims contiguous to the southwest corner of the 17 unit claim block. Sampling on these two claims has yielded visible gold. The new claims also tie on to a five-unit claim block known as the Hydro Creek Gold Property recently optioned to Goldeye Explorations Ltd. (Strike Minerals Inc., News Release, October 5, 2001).

Temex Resources Corp. – Cuniptau PGE Project

Temex Resources Corp. announced surface sampling results on the Cuniptau PGE project in Best Township. Mineralization was encountered at the footwall contact of a mafic dike that is 10-15 m wide and exposed over a strike length of 1.4 km. PGE mineralization is associated with disseminated to bleb-textured chalcopyrite, pyrite and pyrrhotite. Assays ranged up to 3000 ppb Au, 1.9 ppm Pt, 6.0 ppm Pd, 1640 ppm Co, 10.85% Cu and 1.59% Ni (Temex Resources Corp. News Release, June 14, 2001 and www.temexcorp.com).

Temex Resources Corp. – Milestone PGE Property

The Milestone PGE property is located 3 km south of Temagami in Strathcona Township and consists of 1984 ha in the following three contiguous claim groups: Diadem/O'Connor consists of 5 patented claims (Teck Option), Diadem West consists of 29 unpatented mining claims (Laronde Option) and Jessie Lake Group consists of 90 unpatented mining claims (Chiteroni Option).

The Diadem copper-nickel deposit is located within the Temagami Greenstone Belt. The current geological resource is 500 000 t of 1% Cu and 0.5% Ni calculated from only 13 of the 66 drill holes completed at the property to date. The property was previously not explored for its PGE potential nor has the PGE potential been included in the resource calculation. Temex is exploring the Diadem/O'Conner property for high-grade palladium and to expand the existing Cu/Ni resource.

Temex Resources completed three diamond drill holes in 2001 and anomalous values were obtained in Au, Pt, Pd, Cu and Ni (Temex Resources Ltd., Milestone PGE/Cu/Ni Project, Strathcona Township, Kirkland Lake Assessment Work Report CO-2753).

Temex Resources Corp. – Wilson Lake

Temex Resources Corp. completed diamond drill testing (500 m of NQ core) on five of the eight kimberlite targets outlined in the Phase I drill program. All five anomalies tested to date are interpreted to result from the presence of non-kimberlitic intrusive rock.

Subsequently, Temex Resources Corp. completed a Mobile Metal Ions (MMI) geochemical sampling program over a total of 62 high priority targets distributed across the company's 100% owned Wilson Lake property, 15 km south of Temagami. These targets were previously identified using kimberlite indicator mineral (KIM) distribution and chemistry, magnetic anomalies, and topographic features. Based on the MMI geochemical results, Temex defined more than 15 priority kimberlite targets and commenced a winter exploration program consisting of ground geophysics and diamond drilling (Temex Resources Corp., News Releases, April 5, 2001, November 1, 2001, November 13, 2001 and January 02, 2002, and www.temexcorp.com).

Tres-Or Resources Ltd. – Temagami South Diamond Project

The Temagami South Diamond Project consists of approximately 2500 contiguous claim units (40 000 ha) located south of Temagami. Preliminary compiled kimberlite indicator mineral (KIM) counts from Tres-Or's 2001 work program has confirmed that at least four KIM dispersion trains occur in different parts of the 100% owned Temagami Diamond Claim property.

The regional modern alluvium sampling results of the Temagami-Marten River area by the Ontario Geological Survey (Allan, 2001) and Tres-Or's sampling confirm these indicator trains include good indicator mineral chemistry suggestive of diamondiferous kimberlite sources. The indicator mineral surface textures suggest that at least some of the KIM train sources likely originate on Tres-Or's claims (Tres-Or Resources Ltd., News Releases, August 2 and 21, 2001 and www.tres-or.com).

Tres-Or Resources Ltd. – Temagami North Diamond Project (Haileybury)

Tres-Or Resources Ltd. executed a purchase agreement on December 6, 2001 to acquire a 100% undivided interest in 120 claim units north of Temagami and west of Haileybury. In addition the company staked 14 additional claim units.

Exploration work, including detailed ground geophysical surveys, commenced over more than thirty (30) discrete circular magnetic targets within the New Liskeard/Cobalt kimberlite field. Tres-Or's initial work on a portion of these claims confirmed indicator mineral compositions distinct from the known kimberlites, including eclogitic garnets comparable to the diamond-bearing eclogites from the Jericho kimberlite in northern Canada.

During due diligence on a group of these claims, Tres-Or collected a 20 liter stream sediment sample (September 2001) in the Temagami North claim group that contained prolific kimberlite indicator minerals that suggest a very proximal kimberlite source. This sample is out of a small stream that is within a till layer, and was collected approximately 200 m down-ice from a circular magnetic anomaly. Due to extremely prolific kimberlite indicator minerals in the sample, only a portion of the heavy minerals concentrated was sorted. From the portion sorted more than 475 kimberlitic indicator grains were recovered. Extrapolating results from the counted portion, the entire sample is estimated to contain more than 11 000 KIMs within the 0.5 to 1.0 mm grain size range. Included among these indicators are eclogitic garnets and chromites that suggest the source kimberlite may have tapped the diamond stability field, and Mg-ilmenites that indicate the magma is favourable for preserving diamonds. Surface textures suggest a proximal origin of the grains. More than 80% of the Cr-pyropes have at least a trace of kelyphite preserved on their surface, and chrome diopside, Mg-ilmenite, and olivine surfaces are all rated fresh to very fresh (News Release, December 7, 2001 and www.tres-or.com).

RESIDENT GEOLOGIST STAFF AND ACTIVITIES

At year-end, the staff consisted of G. Meyer, Regional Resident Geologist, G. Grabowski, District Geologist, D.L. Guindon, District Geologist and E. Chaloux, District Support Geologist. L. Wallace was District Support Geologist (Acting) between January and April. L. Krupka, summer experience student, provided client service support and assistance to all staff. D. Gamble and A. Liu conducted a mineral resource assessment on part of the Temagami Land Claim area as part of an Ontario Native Affairs Secretariat (ONAS) project. F. Boucher, out of the South Porcupine Resident Geologist office, provided backup throughout the year for the RGO, Common Counter and Mining Lands Consultant. D. Bellefeuille, Co-op student with the Kirkland Lake Collegiate and Vocational Institute (KLCVI), completed displays for two glass rock display cabinets.

G. Meyer gave an overview on mining and exploration activities in the Kirkland Lake District at the Northern Prospectors Association (NPA) annual meeting and was actively involved in the Discover Abitibi initiative.

G. Grabowski operated a field office in Cobalt for 4 days per month during the field season from May to October.

D.L. Guindon developed two Access 97 applications. One will facilitate data compilation and the writing of reports for the Provincially Significant Mineral Potential (PSMP) process and the other is used to capture electronically press releases and other information on mining companies.

E. Chaloux provided backup for the Mining Lands Consultant and attended several health and safety courses in order to become a certified member of the Joint Health and Safety Committee.

Provincially Significant Mineral Potential (PSMP) is a new mineral resource assessment process developed with the help of representatives of Ontario's exploration industry. The process is an outcome of the *Ontario's Living Legacy* land use strategy, but will also be useful for other land use planning processes. RGO staff underwent PSMP, as well as ArcView training.

Kirkland Lake RGO staff contributed material for the NE Ontario's Regional Resident Geologist program display for the PDAC Convention in Toronto, the NE Ontario Mines and Minerals Symposium in Sudbury and the OPA Symposium in Toronto. G. Meyer, G. Grabowski and D. Guindon each gave a presentation at the NE Ontario Mines and Minerals Symposium in Sudbury and provided a poster display.

Kirkland Lake RGO staff conducted 2 field trips in the Kirkland Lake area. Information sessions were provided for Timiskaming District Secondary School (TDSS) students and for the public at Esker Provincial Park.

Although exploration activities in the Kirkland Lake Regional Resident Geologist district were down from the previous year, the office continued to be very active. Please refer to Table 8 for a summary of the year 2001 activities.

PROPERTY EXAMINATIONS

Bidgood Gold Property

Goldaur Resources Inc. acquired a number of properties in Lebel Township, east of the town of Kirkland Lake. Many of these properties were extensively explored between 1920 and 1940. Early exploration focused on quartz veins exposed in outcrop. Extensive overburden cover limited exploration efforts, leaving much untested potential in the area. Only some of the properties were subjected to current exploration methods.

The Bidgood property consists of 22 patented claims between Mud and McTavish lakes. Access is via Hwy 66 from Kirkland Lake to King Kirkland and then northeast via the Bidgood Road. The No.1 shaft is approximately 2 km northeast of the junction of the Bidgood Road and Hwy 66.

The Bidgood Mine was the largest of the gold producers in Lebel Township although the production was insignificant compared with the Kirkland Lake camp. The mine produced 160 184 ounces Au from 586 367 tons between 1934 and 1949. Most of the production came from the No.2 shaft, located approximately 1300 m northeast of the No.1 shaft. Limited production in 1940 from the No.1 shaft totaled 550 tons averaging 0.279 ounce per ton Au (Cave et al. 1941) and came from a few stopes between the 200- and 400-foot levels.

The geology of Lebel Township was mapped in the late 1930's and was released as ODM Map 53A at a scale of 1:12,000 (MacLean and Hogg 1944). Timiskaming sedimentary and mafic alkalic volcanic rocks intruded by quartz porphyry and feldspar porphyry underlie the Bidgood property. A number of strong, parallel, northeast trending shear zones traverse the property.

In 2000, 3 trenches were excavated on the Bidgood property, two perpendicular to and one approximately parallel to a shear zone and a mapped feldspar porphyry dike near the No.1 shaft. Trenches were washed, mapped and sampled. The work by Goldaur on these trenches has not been filed for assessment work to date.

At least three northeast trending shear zones cross the trench near the shaft and a narrow shear zone parallels the southern portion of the trench. The trench crosses syenite or trachyte zones which are hematized to a brick-red

colour. A 30 cm wide rusty shear zone returned an assay of 501 ppb Au (sample 00329 at UTM NAD 27 Zone 17 579572E 5334832N). The sample also returned >3500 ppm Ba and >1000 ppm Cu. A zone of fine-grained sedimentary rocks is also exposed within the syenite/trachyte zone. The 30-cm wide shear zone paralleling the southern portion of the trench, within syenite/trachyte, returned an assay of 556 ppb Au (sample 01310 located at UTM NAD 27 Zone 17 579518E 5334792N).

In the immediate area, exposure is poor and information is sparse due to the ground being patented for an extended period of time. Limited exposure from the trenching confirms that a number of shears exist on the property and that some are auriferous. A small amount of production came from the immediate area but it is unclear how much exploration was completed, other than underground development.

Eby Township Copper – Gold Occurrence

During the 2001 field season, B.R. Berger (OGS, Sudbury) recovered significant copper (6380 ppm), as well as anomalous gold (169.8 ppb), platinum (164.16 ppb) and palladium (54.68 ppb) values from a malachite-stained hornblendite from a road cut on Highway 11 in Eby Township (Berger 2001). Subsequent sampling by staff of the Kirkland Lake Resident Geologist Office confirmed the anomalous copper, platinum and palladium as well as a significant gold value of 0.06 ounce per ton. Analyses were done by MNDM GeoLabs Geoscience Laboratories in Sudbury.

The outcrop is located about 300 m northwest of the Otto Township boundary and about 5 km southwest of the intersection of Highway 11 with Highway 66. The road cut exposes the contact between the Otto Syenite Stock and Kinojevis Group mafic metavolcanic rocks (Lovell 1972). Geological mapping and lithogeochemical sampling done for Butte Canyon Resources Inc. in 1988 (Kirkland Lake Resident Geologist assessment files) indicate a unit of gabbro/norite in the same contact area that contains up to 1% disseminated pyrite and minor pyrrhotite with platinum values up to 390 ppb. Platinum was reported to occur in the Eby-Otto townships area in a 3 km by 400 m band of tuffs and agglomerates as early as 1919 (Cooke 1920).

The nature and composition of the contact area between the Otto Syenite Stock and the Kinojevis Group mafic metavolcanic rocks requires further investigation. Berger states that the ultramafic phases of the stock (gabbro-norite? or amphibolite?) have potential for PGE mineralization and re-mapping of the Otto Stock is necessary.

Potential "New Gold Camp" in Lake Abitibi Area: A Follow-up

To further evaluate the potential for a "new gold camp" in the Lake Abitibi area (Meyer et al. 1999 and 2000), the site of the Milligan boulders was revisited, as well as several locations along the Lake Abitibi shoreline. The objective was to search for identifiable original host rock attached to quartz-vein material, to visit a site where gold can be readily panned and to search for rock boulders composed of material generally associated with gold deposits in the Abitibi.

The northernmost and easternmost Milligan auriferous quartz boulders, located south of East Ford Lake in Milligan Township, could not be located in the field. These boulder sites are accessible by road and they may have been removed. Four samples from the main cluster of quartz boulders, located at UTM NAD 27 Zone 17 563220E 5393601N, ranged from not detected to 1.04 ounce per ton Au, averaging 0.278. The quartz is typical of vein material formed under crack and seal conditions. A small amount of host rock material is caught up along sub-parallel, discontinuous planes within quartz. The host material has been completely carbonatized and sericitized and the original rock type cannot be determined. Where the easternmost quartz boulder was located, four strongly carbonatized boulders were found. These boulders are located at UTM NAD 27 Zone 17 563536E 5393596N. The rock is khaki-colored and massive with a mosaic of two sets of haphazardly oriented quartz-"healed" fractures. The one set consists of micro fractures and the other of quartz veins up to 2 mm wide with small euhedral pyrite. The general appearance is reminiscent of carbonate altered felsite. The four boulders are very similar and may have derived from a single large boulder, which disintegrated into smaller pieces. Due to the close proximity of these boulders to the quartz boulders, it is speculated that they may have a common source. A sample of the carbonate altered boulder returned a trace in gold.

An examination of Quaternary dispersed boulders and pebbles along the shoreline of Camp Three Bay, Red Pine Point and along the western side of Long Point, on Lake Abitibi, revealed the presence of several large quartz boulders and the general widespread distribution of quartz cobbles and pebbles. One large, elongated quartz boulder located on Long Point, UTM NAD 27 Zone 17 569512E 5409819N, measures 2 x 1.5 x 1.2 m. The quartz is white and contains minor disseminated pyrite. Sub-parallel pieces of host rock are attached on opposite sides of the boulder, suggesting a true thickness for the quartz vein of approximately 1 m. The host rock is relatively unaltered and small feldspar crystals are well preserved. The host rock is probably andesite.

Another quartz boulder located at Pine Point UTM NAD 27 Zone 17 562309E 5402883N, in two dimensions measures 1.0 x 0.7 m. One part of the boulder is composed of carbonatized, sheared rock altered beyond recognition.

In another location, NAD 27 17 569050E 5405426N, a conglomerate or agglomerate is cut at a high angle to schistosity and elongation of fragments, by a vuggy quartz vein. Gold assays were below detection limit for the quartz boulder and quartz pebble samples collected along the shoreline of Camp Three Bay, Red Pine Point and along the western side of Long Point. Multiple sources for quartz boulders are perhaps indicated by the variety of host rock attached to quartz boulders (where preserved) and the range in gold content from 0 to >1 ounce per ton.

Some conglomerate derived boulders were observed. The fragments in these boulders are essentially of volcanogenic origin and do not contain granite. Similar rocks were observed in outcrop (Baker 1908). In one location, UTM NAD 27 Zone 17 569451E 5408048N a conglomerate boulder contained angular chert fragments as well. These were probably derived from iron formation. This rock is visually similar to Timiskaming sedimentary rocks.

Strike Minerals Inc. – LaCarte Option

Construction of a new section on Highway 560 west of Porphyry Lake, Tyrrell Township, exposed several narrow quartz veins with minor peripheral carbonate alteration. Grab samples with assays of up to 9.4 g/t Au were reported (Northern Daily News, August 14, 2001, p. 3 and Strike Minerals – this report). The host rock is mostly intermediate to felsic pyroclastic volcanic rock. Also, a small syenite intrusion is exposed on the south side of the highway. Pyrite mineralization occurs throughout and can be semi-massive. Locally pyrite-rich samples did not return significant gold values and it can be assumed that, for the most part, the pyrite-mineralizing event was not associated with introduction of gold.

Of particular interest is a strongly silicified (and possibly albitized) zone with disseminated pyrite located at UTM NAD 27 17 497718E 5277210N. Grab samples collected by Kirkland Lake Resident Geologist staff, assayed up to 0.16 ounce per ton Au. This zone is poorly exposed, but appears to strike south-southeast, parallel or sub parallel to some of the quartz veins in the area. The silicified zone coincides with a southeast-trending fault zone, the position of which was interpreted prior to highway reconstruction (Johns 1999). Presumably, the fault zone provided the channelway for the gold-bearing fluids. Approximately 280 m south of the highway, this fault is crossed by another fault, which strikes northeast and is on trend with the Tyranite gold mine. The best potential for a gold deposit may be within the area of the intersection of the two faults. An EM-16 survey may detect the faults as conductive zones and a walking magnetometer survey should reveal the fault zones as magnetic lows. An IP survey may be of limited value since the volcanic rocks have a high pyrite content without associated gold.

RECOMMENDATIONS FOR EXPLORATION

Exploration for Diamonds

The search for kimberlite and diamonds in the Kirkland Lake Resident Geologist District has gone through several intense, localized exploration phases. Kimberlite pipes discovered to date occur in clusters and apparently align with the north-northwest trending Lake Timiskaming Structural Zone (LTSZ), and locally with conjugate structures to the LTSZ (Sage 1996 and Sage 2000). From north-northwest to south-southeast the clusters are located at Rankin Inlet,

Attawapiskat, Kirkland Lake, New Liskeard/ Haileybury and Finger Lakes in New York State. Recently, most attention is directed to the Attawapiskat area where De Beers Canada Mining Inc. is conducting a pre-feasibility study on the Victor kimberlite pipe. In this report, the focus will be on a section of the LTSZ within the Kirkland Lake Regional Resident Geologist District. A total of 29 kimberlite pipes and 5 kimberlite dikes have been discovered to date in the Kirkland Lake and New Liskeard areas (see Table 10 and Figure 3). Several of the kimberlite pipes are diamondiferous with some gem quality diamonds recovered. Work done to date has been insufficient to adequately test the potential of the known pipes.

Interest in diamond exploration in the Timiskaming area dates back to 1905 or 1906 when a missionary reported a 100+ carat, yellowish, transparent stone, which was considered to be a diamond. This stone was reported to have been found south of Sharp Lake in the Bucke Township area, west of Haileybury. The specimen became known as the "Nipissing Diamond" and was auctioned off at Tiffany's in New York (The Mining Journal, September 22, 1906 – see appendix 1, Summary by George Pollock, Haileybury School of Mines – no date and Temex Resources Corp., in Wilson Lake Diamond project report – www.tmexcorp.com). At that time, the main exploration focus was on silver-rich veins in the Cobalt area and no serious follow-up exploration was performed.

The first record of kimberlite occurrences in the Kirkland Lake area was the identification of thin (15 cm core lengths) kimberlite dikes, intersected in drill holes on the property owned by Marchaud Mines Ltd. in Michaud Township. The dikelets were identified as kimberlite by Dr. Jack Satterly, of the Ontario Department of Mines, during the summer of 1946 (Satterly 1949).

Sampling of the Munro Esker (1964) in the Kirkland Lake area by the Geological Survey of Canada identified detrital grains of pyrope garnet along a length of 35 km of the 113 km tested. A search for the source of the garnets resulted in the identification (1968) of a narrow subsurface kimberlite dike in the Upper Canada Mine. This discovery resulted in a staking rush. Subsequent work did not identify the source for the KIMs (Brummer et al. 1992).

In 1978, the Ontario Geological Survey started a multi-disciplinary study of 29 townships in the Kirkland Lake area. Backhoe and reverse circulation drill samples (1979 to 1982) yielded pyrope garnet and chrome diopside (Averill and Thomson 1981, and Averill and Fortescue 1983). Contouring the distribution of pyrope grains (1990) showed a concentration centered over an area of 616 km2 extending down-ice from Gauthier Township (Brummer et al. 1992). Kimberlite boulders were identified (1981) in gravel pits on the Munro and Misema River eskers located within the anomalous area (Baker 1982).

In 1983, Monopros Ltd. conducted an exploration program in the region and was successful in locating the Alfie Creek (A-4), Nelson Lake (AM47), Nikila Lake (B-30), Morrisette Creek and the Guigues (Quebec) kimberlite pipes by drilling some positive magnetic anomalies. Further discoveries were made by other companies and the total is now 14 kimberlite pipes and five dikes located north, northeast and east of Kirkland Lake and 15 kimberlite pipes in the New Liskeard/Haileybury area, including three pipes on the Quebec side. In the Kirkland Lake and New Liskeard areas, six and five pipes, respectively, are diamondiferous.

A number of bulk-sample tests have been performed on some of the kimberlite pipes and some of the results are as follows:

1. C-14 Kimberlite Pipe, Clifford Township – A total of 17.55 t of kimberlite yielded 8 macrodiamonds weighing a total of 0.30 carats. The largest diamond weighed 0.17 carat. This would translate into 0.0171 carats per t. The chemistry of the KIMs was considered similar to that of the Premier Mine in South Africa (Waldman, M.A., Consultant for Dia Met Minerals – personal communication, 1990) where the grade is 0.3-0.35 carats per t. In a subsequent test of 123 t of kimberlite from the C-14, seven macrodiamonds were recovered, including one diamond weighing 0.204 carat (Regal Goldfields Limited, 1993 Annual Report, p. 2 and Tilsley, 1993 – Kirkland Lake Assessment Work Report – KL-4056).

2. Sudbury Contact recovered 33 macrodiamonds (>0.5 mm) and 23 microdiamonds (< 0.5 mm) in a 1104.44 kg sample from the 95-2 kimberlite pipe in Lundy Township.

As stated, some of the kimberlite pipes are diamondiferous and gem quality diamonds have been recovered. The stones are small (largest 0.204 carat from the C-14 kimberlite pipe) and the kimberlite samples tested have low carat/t content. It should be noted that a single kimberlite pipe is commonly a composite of several phases of kimberlite intrusions. Each phase can vary considerably in diamond content, size and quality. This makes an assessment of the economics of a pipe extremely expensive. Thick overburden is commonly increasing the costs of evaluation.

The search for kimberlite is generally achieved by using a combination of tracing glacially dispersed kimberlite indicator minerals (KIMs) and/or kimberlite boulders in the up-ice direction, testing of "bull's eye" magnetic high or low targets and evaluation of topographic features. The KIMs favourable to diamond association are characterized by Cr-rich, Ca-poor pyrope garnets and Cr- and Mg-rich chromites. Magnetic "bull's eye" anomalies are generally widespread and common and in the majority of cases have not been tested indicating a high potential for numerous additional kimberlite pipe discoveries.

Recent property acquisitions, reconnaissance exploration results and development of Mobile Metal Ion (MMI) geochemical techniques (XRAL Laboratories) indicate that another phase of extensive exploration for diamonds is about to commence. Factors that support imminent exploration include:

1. Large mining property positions have been acquired over a period of several years by Mustang Minerals Corp. (and Falconbridge Limited), Temex Resources Corp. and Tres-Or Resources Ltd. between Temagami and North Bay. These properties are also located within the LTSZ. The reason for the optimism of the companies is the occurrence of numerous KIMs in the area ranging up to more than 200 KIMs per sample and in one Temex sample exceeding 800 grains/sample. Mustang (work done by Falconbridge) and Temex reported KIM-rich samples in which the pyrope content ranged up to 88% G-9's and 10% G-10's. The Cr-rich and Ca-poor G-10 pyrope garnets are indicative of diamond association. There appears to be no shortage of circular magnetic anomalies, which until tested, represent potential kimberlite targets. Mustang and Temex have reported 70 and 62 such targets, respectively. The preservation of kelyphite rims on numerous garnets and in rare instances the attachment of kimberlite fragments were noted by Temex at their Wilson Lake project in Law Township. These features suggest limited distance traveled and the presence of a new kimberlite field in the up ice direction near Temagami.

   In 2001, Temex diamond-drill tested five magnetic anomalies, but kimberlite was not intersected in any of the holes. The company subsequently decided to screen the magnetic anomalies and subjected 62 targets to Mobile Metal Ions (MMI) geochemical sampling programs. Based on the results, 15 high priority kimberlite targets were identified and a drill program is currently in progress (Mining North, August 2000, p.7, Temex Resources Corp., Press Releases, April 5, 2001, November 1, 2001, November 13, 2001 and January 02, 2002, and www.temexcorp.com).

   The Ontario Geological Survey carried out a modern alluvium sampling program in an area covering a diagonal area 48 km wide from approximately 30 km northwest of Temagami to 23 km south of Marten River (Allan 2001). In her report on this study area, Allan concluded: "The heavy mineral concentrates derived from those samples provides an outline of the regional distribution of kimberlitic or related rock indicator minerals. The 4 km^2 spacing of the samples is too widely spaced to precisely locate the source(s) of the heavy mineral signatures observed. The objective of the survey was fulfilled and the results indicate that the potential for kimberlite or related rock in the region is highly probable. Several facts contribute to this conclusion: the numbers of KIMs recovered is greater than average background amounts; the good representation of the most significant diamond indicators, G 10s and DI chromites, that occur in samples with a variety of other KIMs; the highly faulted character and structurally controlled nature of the study area and the close spatial association of the Lake Timiskaming Structural Zone, believed to be associated with kimberlites already discovered north of the study area. For these reasons, further, more detailed exploration is warranted and strongly recommended. The anomalous areas identified should be sampled at a higher density and till sampling should be undertaken. Till sampling delineates source derivation more clearly than stream sediment sampling. Dispersal trains can be identified and, given that ice directions are well defined, the source(s) could be pinpointed with greater certainty". The initial encouraging results prompted the Ontario Geological Survey to also sample in 2001 an area between the above study area and the Ontario/Quebec border (Reid 2001).

2. Tres-Or Resources Ltd. identified 30 discrete circular magnetic targets and carried out stream sediment sampling on their Temagami North Diamond Project west of Haileybury. An exceptionally high KIM content was discovered in one of the samples. Included among the indicators are eclogitic garnets and chromites that suggest the source kimberlite may have tapped the diamond stability field and Mg-ilmenites that indicate the magma is favourable for preserving diamonds. Surface textures suggest a proximal origin for the grains. More than 80% of the Cr-pyropes have at least a trace of kelyphite preserved on their surface, and chrome diopside, Mg-ilmenite, and olivine surfaces are all rated fresh to very fresh. This sample is located approximately 200 m down-ice from a circular magnetic high. For more detail see Tres-Or Resources Limited - Temagami North Diamond Project under Exploration and Property Acquisitions in this report.

3. An airborne magnetometer survey and overburden sampling proposal is under consideration by the committees of the Discover Abitibi Initiative for the Round Lake Batholith area. The purpose is to identify potential kimberlite targets.

4. MMI (XRAL Laboratories) research surveys over known kimberlite pipes are under consideration. The objective is to develop a simple geochemical technique whereby overburden-covered kimberlites can be differentiated from other non-kimberlitic rocks.

5. Northwest of Lake Abitibi, Boulder Mining Corporation has acquired three separate claim blocks, the WALP (kimberlite) claims, which have four distinct circular magnetic anomalies that are potential kimberlite targets. The company is planning follow-up exploration including drill tests (News Release November 29, 2001 and www.bouldermining.com).

6. New kimberlite pipes or extensions have been found recently next to the Bucke kimberlite pipe by Nova West Resources Inc. and east of the Seed pipe (named – Triple B Pipe) by the Geological Survey of Canada (Nova West Resources Inc., Press Releases May 30, July 12 and December 13, 2000 and www.novawest.com and M. B. McClenaghan, Terrain Sciences Division, Geological Survey of Canada, personal communication, 2002).

7. A new technique was developed (Keating 1995) to identify roughly circular targets from residual magnetic intensity caused by steeply dipping, cylindrical-shaped rock bodies with stronger or weaker magnetic characteristics compared with the host rock. This technique has been applied to airborne magnetic surveys completed by Operation Treasure Hunt. Numerous anomalies have been identified (Meyer et al. 2001).

8. A new development is the discovery of diamonds in Archean-aged lamprophyre in the Wawa area. G. Grabowski performed reconnaissance geochemical studies on lamprophyre samples collected near Wawa and in the Kirkland Lake – Cobalt area. Based on the initial results he recommended that the lamprophyre dikes in the Kirkland Lake – Cobalt area should also be tested for diamonds (Meyer et al. 2000). Prospectors Simon Wareing and Murray Simpson of Prairie C Resources Property Development followed up on this recommendation and three microdiamonds were recovered from an 18 kg lamprophyre sample collected in Lorrain Township. Other companies are now also considering testing lamprophyre dikes.

OGS ACTIVITIES AND RESEARCH BY OTHERS

Discover Abitibi

Discover Abitibi is a potential $10 million program, 50% funded by FedNor, 40% funded by Northern Ontario Heritage Fund Corporation (NOHFC) and 10% by industry, some of which may be "in kind". The program is designed to study/explore the Abitibi Greenstone Belt in the Timmins – Kirkland Lake area. The objective is to generate targets for follow-up exploration that may lead to the discovery of new orebodies.

To bring this proposal forward, a Management Committee (MC), geological technical committee (TC), economic and community impact evaluation committee and technical sub-committee were formed and John Reddick hired to fill the position of Discover Abitibi Project Director. The TC, accountable to the MC, consists of the following 11 members: CAMIRO (1), NRCAN (1), MNDM (1), PPDA (1), NPA (2), the Porcupine Mine Managers Association

(3) and FedNor (1 – ex-officio) have nominated members.

The TC will determine whether proposals meet the overall Discover Abitibi project intent (integrated geoscience, reduce knowledge gaps, economic benefit, benefit the exploration community as a whole) and are feasible in terms of geological potential, areal coverage, technical specifications and costs.

The TC will provide direction on management and review approved programs to ensure they meet the target objectives and to provide recommendations to the MC as to the balance between recommended programs.

More than 40 projects have been proposed and compiled by the technical sub-committees. Of these, the Northern Prospectors Association (NPA) technical sub-committee contributed 21. The summary of the NPA proposals is attached (Appendix 2). Details of more than 30 project proposals can be viewed at www.porcupineprospectors.on.ca.

Some project proposals will be considered unchanged, others will be grouped into geology, geophysics, geochemistry etc. and several will not go forward at this time.

Ontario Geological Survey Activities

B.R. Berger commenced a multi-year project to remap and improve the geological database along Hwy 66, west of Kirkland Lake. The project includes areas covered by Alma, Holmes, Burt, Eby, Otto, Cairo and Flavelle townships.

B.R. Berger is studying the variation in styles of mineralization along the Porcupine-Destor Deformation Zone. The objective is to develop a guide for exploration.

G. Machado, H. Longuépée and G.W. Johns mapped the geology of Burrows, Kemp and Mond townships in the Shining Tree area.

J.L. Reid conducted a regional modern alluvium sampling survey to obtain information concerning the types and distribution of kimberlite indicator minerals in an area from Mattawa to Cobalt.

Geological Survey of Canada (GSC)

GSC Targeted Geoscience Initiative (TGI) Project 000022 - GSC research scientists Beth McClenaghan and Bruce Kjarsgaard continued their kimberlite/glacial dispersal studies in the Kirkland Lake-Lake Timiskaming kimberlite fields in the Fall of 2001. Fieldwork consisted of excavating trenches into two kimberlites on the Seed property (Seed and Triple B kimberlites) in Firstbrook Township, and pits down-ice for till sampling. The upper surface of the Seed kimberlite is striated indicating ice flow was towards the south. Kimberlite, as well as till overlying and down-ice of the kimberlites, was sampled to determine the mineralogical and geochemical signature of both kimberlites and to document glacial dispersal patterns. Kimberlite boulders from local down-ice gravel pits were also collected to determine if the Seed or Triple B kimberlites are the source of the boulders in these eskers (M. B. McClenaghan, Terrain Sciences Division, Geological Survey of Canada, personal communication, 2002).

McMaster University

S. Deschamps and W.A. Morris are studying the physical rock properties in the Kirkland Lake- Matachewan-Matheson and area in order to develop a database to aid in the interpretation of geophysical data. Physical rock properties of interest are magnetic, electromagnetic, seismic, gravity and gamma ray responses. A total of 474 oriented samples were collected. This project is carried out through the Ontario Geological Survey- McMaster University Collaborative Project Agreement, under the Operation Treasure Hunt (OTH) initiative.

Mineral Exploration Research Centre, Laurentian University

G. Gionet, D. Dempsey, L. Valade (OGS) and N.F. Trowell (OGS) are undertaking a two-fold research project,

which is designed: 1) to characterize the environment around known kimberlites by quantitatively treating standard geological data sets within a geographic information system (GIS); and 2) to determine the additional information, if any, which remotely sensed imagery in the form of Radarsat SAR (Synthetic Aperture Radar) might contribute to characterizing kimberlites.

M. Houlé, C.M. Lesher, H.L. Gibson, A.D. Fowler, and R.A. Sproule are studying the physical volcanology and metallogenesis of komatiites in the Abitibi Greenstone Belt (AGB). The aims of the study are to establish the volcanic facies of komatiites in the AGB in order to constrain stratigraphic, tectonic and metallogenic models. Three broad topics have been addressed thus far: 1) classification of komatiite lava flow; 2) determination of regional facies variations of komatiites in the AGB; and 3) determination of local facies variations of komatiites in the AGB.

Ottawa Carlton Geoscience Centre and University of Ottawa

K. Benn, J.A. Ayer (OGS), B.R. Berger (OGS), C. Vaillancourt (OGS), E. Dinel and B. Luinstra are studying the structural style and kinematics of the Porcupine-Destor Deformation Zone.

G. Leblanc, G.W. Johns (OGS), and A.D. Fowler are studying the geology, volcanology, lithogeochemistry and alteration associated with volcanogenic base metal mineralization in the Big Four Lake area, Shining Tree area.

L. Pigeon, A.E. Lalonde and B.R. Berger (OGS) continued with a study, initiated in 1999, to describe the occurrence and composition of the principal mafic minerals, in a suite of small intrusions of syenite and related rocks, that are closely associated with gold mineralization in the Porcupine-Destor Deformation Zone, near and east of Matheson.

MNDM's ABANDONED MINES PROGRAM

DST Consulting Engineers Inc. conducted a geotechnical survey on the Toburn Mine site in order to recommend rehabilitation solutions for the property. This is part of MNDM's abandoned mines program (Northern Daily News, September 10, 2001, p. 1).

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APPENDIX 1. "NIPISSING DIAMOND"

"The Mining Journal" September 22, 1906

Diamond (?) Discovery in the Nipissing District
(From a correspondent)
Ottawa, September 5

Mr. Adolphe O. Aubin, M.P.P. of West Nipissing, and merchant, of Sturgeon Falls, Ontario, has in his possession a stone which is believed to be one of the largest diamonds in the world. This stone was secured from a man who found it in the Lake Nipissing district.

Rev. Father Paradis, the well known New Ontario coloniser and missionary, who has seen the stone, and who has made a drawing of it (a tracing of which accompanies this article), in speaking of the stone, says: "Nearly every connoisseur who has examined it has pronounced it to be diamond, and the discovery has naturally caused a good deal of excitement. I, myself, have seen the stone. It is as large as a hen's egg, and has a rough surface and a yellow tinge. All the usual tests have been applied to it, and if these tests are infallible, then it certainly is a diamond. Mr. Aubin has already been offered thousands of dollars for it, but has refused to sell it. He is going to have it cut himself."

So far, there have been no authenticated finds of diamonds in Canada, though the geologic formation is right for them; though in the States there are four regions where diamonds have been met with. These are (1) the Pacific coast, chiefly along the western base of the Sierra Nevada, in the central counties of California, associated with gold in the cement gravels; (2) along the line of the moraine of the ancient ice sheet in Wisconsin, Michigan, Indiana, and Ohio; (3) Kentuckey and Tenessee; (4) the Atlantic States, from Virginia to Alabama, chiefly in the Piedmont region.

THE "NIPISSING DIAMOND."

The stone discovered in the Nipissing District, and now owned by Mr. Adofhe O. Aubin, M.P.P. Sketch, actual size, by Rev. Father Paradis.

APPENDIX 2. NPA - DISCOVER ABITIBI TECHNICAL SUB-COMMITTEE PROPOSALS

The following projects have been proposed or mentioned as follows:

1. *Airborne electromagnetic and magnetic survey, Blake River Basin, Ontario using the Mega Tem II System for base metals (Alexander).

   In 1992 the GSC carried out 7100-line km of geophysical surveys using the Geotem System over 12 townships with a penetration of less than 100m. The Operation Treasure Hunt airborne survey also used the Geotem System.

   The cost of the Mega Tem II System with a penetration of 300 m over 13 townships in the Blake River Basin with a line spacing of 200 m to cover 6000 line km is in the order of $110/line km (110 x 6500) totalling $715 000.

2. Airborne electromagnetic and magnetometer survey, three townships (Clifford, Ben Nevis and Pontiac) within the Blake River Basin, Ontario using the Mega Tem System for base metals.

   The cost of the survey at 200 m line intervals covering 1500 line km is in the order of $110 line km (110 x 1500) totalling: $165 000.

3. Lithogeochemical studies within the Blake River Basin, Ontario to cover three townships, Clifford, Ben Nevis and Pontiac for base metals (Sharpley).

   The cost is $50 000 per township. Totaling $150 000.

4. *Enzyme leach and magnetometer profiles across the Larder Lake Break for gold (Nadeau).

5. Detailed seismic profiles across the Kirkland Lake and Larder Lake Breaks to a depth of 2 or 3 km to locate parallel breaks and splay faults in order to explore for gold.

6. *Airborne electromagnetic and magnetometer survey, eastern extension of the Kidd-Munro Assemblage through the Larder Lake Mining Division to the Quebec border using the Mega Tem II System (Gamble) covering 15 townships for base metals. Total: (110 x 7500) $825 000. Proposal by D. Gamble.

7. MMI and magnetometer profiles across the known kimberlites in the Kirkland Lake area to determine the geochemical signature.

8. Till sampling for diamond indicator minerals (KIMs) over the Round Lake Batholith, 12 townships (Kirkland Lake Regional Resident Geologist Staff).

9. MMI and magnetometer profiles across gabbros in Watabeag Lake area in Nordica Twp for PGEs.

10. *Enzyme leach and magnetometer profiles across the Lake Abitibi Deformation Zone for gold (Kirkland Lake Regional Resident Geologist Staff).

11. Sonic Profile across the Lake Abitibi Deformation Zone for gold (Kirkland Lake Regional Resident Geologist Staff).

12. Seismic profile across the Porcupine-Destor Deformation Zone and subsidiary or splay faults for gold potential in the Harker Holloway area to include the North Branch of the Porcupine-Destor Deformation Zone.

13. Enzyme leach and magnetometer profile across the Porcupine-Destor Deformation Zone to include the North Branch of the Porcupine-Destor Deformation Zone in Frecheville Township (Kirkland Lake Regional Resident Geologist Staff).

14. 3-D computer modeling of the Foxpoint property along the Kirkland Lake Break in the Kirkland Lake area to include mine workings, auriferous zones, diamond drill holes and geology (Sutton).

    This is similar to the modeling by Goldcorp in the Red Lake area using the Gemcom System.

15. Computer modeling could be extended to cover the Larder Lake Deformation Zone. NFX has already computerized their property.

16. *Airborne electromagnetic and magnetometer survey, Halliday Dome area, Tisdale Assemblage, using the Mega Tem II System for base metals to cover 8 townships. Total: (110 x 4000) $440 000. Proposal by Mike Sutton.

17. Airborne electromagnetic and magnetic survey, Skead Group, Blake River Assemblage, using the Mega Tem II System for base metals to cover 8 townships. Total: (110 x 4000) $440 000. Proposal by D. Gamble.

    This area was covered by the Operation Treasure Hunt using the GeoTem System.

18. Investigate lamprophyre dikes in the Cobalt area for diamonds (Grabowski). Microdiamonds have been found in a lamprophyre dike in Lorraine Township. The diamond model for this area is the same as Wawa.

19. Lithogeochemical studies of hydrothermal alteration associated with gold and volcanic massive sulphide deposits (Meyer). This type of study could be carried out in conjunction with the enzyme leach profiles or airborne surveys for base metals.

20. Airborne electromagnetic and magnetometer survey, Round Lake Batholith, Elk Lake and Gowganda for kimberlites, base metals and PGE to cover 17 townships. Total: (110 x 8500) $935 000. Proposal by G. Grabowski).

21. Airborne electromagnetic and magnetic survey, Cobalt area, for base metals using the Mega Tem II System to cover 4 townships (Gamble). Total: (110 x 2000) $220 000. Proposal by D. Gamble.

    This area was covered by Operation Treasure Hunt using the GeoTem III System.

These proposed Discover Abitibi projects are possible only if private sector financing is available for 10% of the budget.

Detailed budget information is not yet available.
By: F. Sharpley
Revised: Dec. 18/2001

Note:

1. High priority projects *
2. Detailed project proposals, as well as project proposals by others, are posted on the web: www.porcupineprospectors.on.ca

Table 1. Summary of claims recorded and assessment work credits filed in the Larder Lake Mining Division - 2001.

Year	Claims Units Recorded	Claim Units Cancelled	Claims Units Active	Total ($)
2001	4308	6229	20 419	2 888 711*
2000	4506	9821	22 633	4 532 745*
1999	4042	11 603	27 767	11 119 663*
1998	N/A	N/A	35 328	15 152 730*
1997	9599	6858	37 083	N/A

** Processed in calendar year for the Kirkland Lake Regional Resident Geologist District*

Note: 5590 claim units in the Sudbury Mining Division (19 townships) are in the Kirkland Lake Regional Resident Geologist District (count performed on February 21, 2002).

Table 2. Mine production and reserves in the Kirkland Lake Regional Resident Geologist District - 2001.

Mine	Production to end of 2001		Production in 2001		Reserves and resources at end of 2001	
	Tonnage @ Grade	Total Commodity	Tonnage @ Grade	Total Commodity	Tonnage	Grade
Extender Minerals - Yarrow	N/A	N/A	N/A	2400 t barite	None	N/A
Extender Minerals - North Williams	N/A	N/A	N/A	9600 t barite	4 years	N/A
Glimmer Mine	1 212 592 tons @ 0.173 ounce/ton Au	209 926 ounces Au	81 700 t @ 4.53 g/t Au	369 976 g Au	777 982 t	8.92 g/t Au
Holloway Mine	2 934 121 tons @ 0.179 ounce/ton Au	525 305 ounces Au	552 947 t @ 5.99 g/t Au	3 311 276 g Au	3 422 396 t[1]	6.52 g/t Au[1]
Holt-McDermott Mine	6 758 364 tons @ 0.162 ounce/ton Au	1 094 671 ounces Au	450 537 t @ 6.05 g/t Au	2 599 535 g Au	1 993 056 t[2]	7.70 g/t Au[2]

[1] *Combined ore reserves in the proven and probable categories.*
[2] *Combined ore reserves in the proven, probable and inferred categories.*

Table 3. Assessment files received in the Kirkland Lake Regional Resident Geologist District in 2001.

Abbreviations

AEM .....Airborne electromagnetic survey
AM ..... Airborne magnetic survey
ARa .....Airborne radiometric survey
AVLF-EM Airborne Very Low Frequency EM survey
Beep ..... Beep mat survey
Bulk..... Bulk sampling
DD..... Diamond drilling
DDH..... Diamond drill hole(s)
DGP..... Down-hole geophysics
EBS ..... Environmental Baseline Study
Gc ..... Geochemical survey
GL .....Geological survey
Ind .....Industrial Mineral Study
M .....Ground magnetic survey
Gv ..... Gravity survey
HLEM .....Horizontal loop electromagnetic survey
IP..... Induced polarization survey
Lc ..... Linecutting
OvD..... Overburden drill hole(s)
PEM .....Pulse electromagnetic survey
PGM..... Platinum group metals
Pr .....Prospecting
PW ..... Physical work
RE ..... Re-evaluation of surveys
R .....Resistivity survey
rTr .....Trenching
SA .....Sampling (other than bulk)
sTr..... Stripping
VLEM ..... Vertical loop electromagnetic survey
VLF-EM Very low frequency electromagnetic survey
Ug .....Underground work

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Argyle, Bannockburn	Collin, Y. / Grant, J. "Argyle Property"	1999	M, VLF-EM	OP99-27, OP99-28	KL-4911
Asquith	O'Connor, T. / Forbes, R. "Forbes Property"	2000-2001	sTr, rTr, SA	2.20607, 2.22182	CO-2686, CO-2687
Asquith	Salo, L.	1999	Lc, M, VLF-EM, DD(4)(314m), sTr, GL	OP99-221	CO-2688
Asquith	Skead Holdings Ltd. "Asquith Twp. Property"	1999-2001	Pr, SA	2.20827	CO-2689
Beatty, Hislop	Noranda Exploration Company Limited "Glimmer Property"	1994	DD(36)(5123m), GL, SA	NOHFC	KL-4978
Berhardt, Lebel, Morrissette, Teck	Deloye, D. "Kirana Property"	1987	DD(14)(2720m), Lc, IP, VLF-EM, R, GL, SA	Donation	KL-4941
Bernhardt	Fraser, R. "Bernhardt Project"	1999	Lc, VLF-EM, M, Pr, GL	OP99-107	KL-4920
Bernhardt, Teck	Marion, E. J. "Lakeview Property"	2001	Lc, VLF-EM	2.21075	KL-4925

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Best	Chitaroni, G. "Cuniptau Property"	2001	rTr, sTr, SA	2.22095	CO-2690
Best	King, D.	2000	DD(1)(60m), SA, Gc	2.20832	CO-2691
Best	Shouinard, G.	1999	Pr	2.20845	CO-2692
Black	Forbes, J. "Keller Property"	1999-2000	Lc, Tr, SA, Pr, VLF-EM, Gc	OP99-520, 2.20844	KL-4913, KL-4929
Black	Lumac Exploration "Allsopp-Luoma Property"	1999	Pr, GL, SA, Gc, PEM, M	OP99-065, OP99-066	KL-4907, KL-4908
Black	McRae, D.H. "McRae Claims"	2000	Pr, Lc, HLEM, GL	2.22133	KL-4982
Black, Lee	International Canalaska Resources Ltd. "Blackrock Property"	1998	EM, M, R	2.19905	KL-4923
Bonis	Seal River Explorations Ltd. "Departure Creek Property"	1999	M	2.20796	KL-4894
Bowman, Currie	Falconbridge Limited "Currie-Bowman Property"	2001	Lc, IP	2.21973, 2.21373	KL-4954, KL-4939
Briggs	Von Cardinal, T. "Niemetz Property"	1999-2000	Lc, Pr, SA, M, VLF-EM, R, IP	2.20729, OP99-188	CO-2693l, CO-2694
Bucke	Wareing, S. "North Cobalt Property"	2001	SA	2.22005	CO-2695
Burt	Rivard, F.	2000-2001	DD(1)(288m), DD(1)(127m), SA	2.20767, 2.21948	KL-4868, KL-4957
Cassels	Temex Resources Ltd. "Monty Lake Claims"	2000	Pr, SA, GL	2.20802	CO-2696
Catharine	Link, T.A. "Link-Catharine Property"	2000	SA, DD(3)(450m)	2.20824	KL-4873
Catharine	Wigglesworth, F.C.	2001	Pr	2.21714	KL-4946
Catharine, Skead	Garvey, R. "Larder Lake Property"	1999	Lc, Pr, SA, M, VLF-EM	2.20608	KL-4878

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Catharine, Skead	Salo, A. "Catharine-Skead Property"	2001	Pr, SA	2.22083, 2.22084	KL-4967, KL-4968
Chambers	Blake, F.	1999	Pr, Tr, GL, Gc, M, VLF-EM	OP99-242	CO-2697
Chambers	MacDonnell, A.	1999	Gc, M, VLF-EM, Lc, Pr, SA, Tr, GL	OP99-241	CO-2698
Charters, Corkill, Ray	Stephenson, C.	1999	GL, Gc, SA, Tr	OP99-308	CO-2699
Churchill	Hinzer, J.B. "Hinzer, Dirks, Dirks Shiningtree Property"	1999	Gc, SA, M	OP99-078	CO-2700
Churchill	MacGregor, R.A.	1999-2001	SA, GL, Gc	2.21598	CO-2701
Churchill	Skead Holdings Ltd. "Churchill Claims"	1999-2001	Pr, GL, M, SA	2.20930, 2.20872, 2.21635	CO-2702, CO-2703, CO-2704
Cleaver	Flinsky, William "Flinsky Claim Property"	1999-2000	sTr, rTr, GL, Gc	2.20944	KL-4900
Coleman	Davis, C.J.	2001	PW	2.21478	CO-2705
Coleman, Gillies Limit	Cabo Mining Corp. "New Lake Property"	2000-2001	Pr, SA, GL, Gc, DD(1)(131m), DD(1)(59m), DD(2)(326m), DD(1)(162m)	2.21010, 2.20947, 2.20723, 2.20929, 2.21015, 2.20969, 2.21666, 2.21797	CO-2706, CO-2711, CO-2712, CO-2713, CO-2714, CO-2715, CO-2719, CO-2723
Cook, Playfair	Germundson, K. "Wilzel Property"	1999	Lc, GL, SA, M	OP99-151	KL-4918
Dack	Morris, J. "L-M Property"	1999	Lc, sTr, IP, SA, GL, Gc	OP99-293	CO-2707
Dokis, Tannahill	Carrueau, A. / Marion, E. "Malamute Property"	1999-2000	sTr, Tr, SA, Lc, M, DD(2)(368m), GL, Gc	OP99-238, OP99-239, 2.20896	KL-4916, KL-4928
Dufferin	Salo, J. "Dufferin Property"	1999	Lc, M, sTr, DD(2)(200m), GL, Gc	OP99-222	CO-2708

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Dymond, Harris	Dymond Clay Products "Lake Timiskaming Outlier Study"	1988	DD(5)(84m), Gc, Ind.	NorDev 7032	CO-2709
Eby	Huston, C.D. "C.D. Huston Property"	1999	DD(1)(184m), Lc, GL, M, SA, IP	OP99-94	KL-4906
Elliott	Perron, A.H. / Perrex Resources Inc. "Coastoro - New North Grid"	2000-2001	Lc, M, VLF-EM	2.20848, 2.20829	KL-4877, KL-4883
Elliott	The Perron Gold Corporation "WW-6 North South Grid"	2001	Lc, M, VLF-EM	2.20948	KL-4892
Elliott, Garrison, Harker	The Perron Gold Corporation "Iris Extension"	2001	Lc, M, VLF-EM, GL	2.22100, 2.22047, 2.21995, 2.21856, 2.21889, 2.21957	KL-4966, KL-4965, KL-4955, KL-4950, KL-4951, KL-4958
Elliott, Harker	The Perron Gold Corporation / Perrex Resources Inc. / The Alberta Gold Exploration Corporation "Iris Property"	2001	Lc, M, VLF-EM, GL	2.22331, 2.21970, 2.21333, 2.21402, 2.20749	KL-4988, KL-4953, KL-4937, KL-4935, KL-4865
Fawcett	Rosko, P.A. "Granite Lake Project"	2001	Pr, SA	2.21545	CO-2710
Flavelle, Holmes	Cunningham, L.J. "Holmes-Flavelle Property"	1997-1998	GL, rT, SA, Lc, IP	2.21540	KL-4971
Garrison	Consolidated Imperial Resources Ltd.	1981	VLF-EM	Donation	KL-4889
Garrison	Deloye, D.	1944-1989	DD(5)(1131), VLF-EM, M, IP, R, GL	Donation	KL-4940
Garrison, Harker	Dyment, L.M. "New Years Eve Property"	1996	Lc, M	2.20797	KL-4872
Garrsion	Gwen Resources Ltd. "Silverside-64"	2000	LC, M, VLF-EM	2.20808	KL-4869
Gauthier	559505 Ontario Limited "Northland Group"	2001	Lc, M, VLF-EM	2.22174	KL-4984
Gauthier	Murphy Mines Ltd.	N/A	DD(4)(888m)	Donation	KL-4962

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Gauthier	Queenston Mining Inc. "Mayfair Property"	2000	GL, SA	2.20822	KL-4880
Gauthier	Queenston Mining Inc. "McBean-Anoki Property"	1999	DD(2)(947m), SA	2.20881	KL-4887
Gauthier	Queenston Mining Inc. "Upper Beaver Property"	2000	DD(1)(596m), SA	2.21379	KL-4933
Gauthier, Arnold, Lebel	Sudbury Contact Mines Ltd. "Victoria Creek Project"	1994-1995	DD(52)(25,908m) SA	NOHFC	KL-4974
Gauthier, Hearst, McElroy, McVittie, Skead	Skead Holdings Ltd.	1999-2000	GL, SA, Gc	2.20803	KL-4898
Gillies Limit	Cabo Mining Corp. "Schuman Lake Area"	2000-2001	SA, GL	2.21016	CO-2716
Gillies Limit	Chitaroni, G. "Copperville Property"	1999	Lc, M, VLF-EM	OP99-187	CO-2717
Gillies Limit	Chitaroni, G. "Whitney Lake Property"	2001	Lc, M, VLF-EM	2.22197	CO-2718
Gillies Limit	Gilson, R.A. "Bass Lake Property"	2000	rTr	2.20594	CO-2720
Gillies Limit	Goddard, D. "Whitney Lake Grid - West Extension"	1999	Tr, SA, M, VLF-EM, Pr, Gc, Lc	OP99-011	CO-2721
Gillies Limit	Prairie C Resource Development "Santa Maria Property"	2000	Lc, SA, M, VLF-EM	2.20688	CO-2722
Harker	Perrex Resources Inc. "New North/South Grid"	2001	Lc, VLF-EM, M	2.20978, 2.20857, 2.20949, 2.20903, 2.20871, 2.20928	KL-4903, KL-4882, KL-4891, KL-4890, KL-4885, KL-4895
Harker	Perrex Resources Inc. "New West Grid"	2000-2001	Lc, M, VLF-EM	2.20830, 2.20760, 2.20821, 2.20778	KL-4875, KL-4866, KL-4881, KL-4870
Harker	Perrex Resources Inc. "Perrex-41"	2001	DD(1)(398m), GL, SA	2.20980	KL-4930

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Harris	Tundra Granite & Marble Inc. "Breault Quarry"	1992-1993	Ind.	NOHFC	CO-2724
Haultain, Nicol	Canadian Lencourt Mines Ltd. "Sandy K Silver Tailings Project"	1986-1987	OvD(152)(910m), SA	NOHFC	CO-2725
Hearst	Korola - Larder Mines Ltd. "Korola - Larder Property"	N/A	GL, DDH	Donation	KL-4961
Hearst	Thunderwood Explorations Ltd. "Martin-Bird Property"	1980	DD(25)(2296m), GL	Donation	KL-4886
Hepburn, Sargeant	Sharpley, F.J. "Esker Property"	1999	DD(1)(102m), GL, SA	2.22314	KL-4987
Hislop	St. Andrew Goldfields Ltd. "NW Hislop Claim Group"	2001	GL	2.22280	KL-4986
Hoblitzell, Noseworthy	Tri Origin Exploration Ltd. "Burntbush Project"	1998	DD(8)(2764m), GL, SA	2.20815	KL-4926
Holloway	Newmont Canada Limited "Golden Hwy Prospect"	2000	DD(1)(567m), GL	2.21891	KL-4956
Holloway	O'Bradovich, T.	2000	Lc, IP	2.20759	KL-4867
Holloway, Marriott	The Perron Gold Corporation "101 Property"	2001	Lc, M, VLF-EM	2.21887, 2.22231, 2.21071	KL-4959, KL-4985, KL-4924
Hudson	Windsor, K.	2000	Pr, Lc, SA	2.20678	CO-2726
James, Tudhope	Pinkerton, G. "Beaver Pond Project"	1999	Lc, M, sTr, Pr, DD(2)(80m), SA	OP99-231	CO-2727
Katrine	Katrine Exploration and Development Inc. / Larocque, D. "Row-Katrine Property"	1999	Pr, M, VLF-EM, GL, Gc, SA	2.21828, OP99-110	KL-4949, KL-4919
Katrine, Ossian	Katrine Exploration and Development Inc. "Walsh-Katrine Mine Property"	2001	Pr, SA	2.21827	KL-4980
Kelvin	Anderson, S.	1999	Lc, M, HLEM, IP, rTr, SA, GL	2.21006	CO-2728
Kelvin	McKinnon, D. "Claw Creek Property"	1999	M, HLEM, IP, Tr	OP99-508	CO-2729

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Kerrs	Campbell, K.B. "Goop Property"	1999	Lc, Pr, M, VLF-EM, SA, Gc, GL	OP99-096, 2.21575	KL-4905, KL-4944
Kimberley	Lourim, J. "Heart Lake Property"	1999	STr, SA, Lc, GL	OP99-014	KL-4910
Kimberley	Windsor, K. / Windsor, G.	2000	Pr, sTr, SA	2.20654	KL-4864
Kimberly	O'Connor, T.	2000	sTr, GL	2.21446	KL-4942
Knight	Burda, D. / Thurston, M. "Brush Lake Grid / Pigeon Lake Grid"	1998-1999	Lc, SA, M, VLF-EM	OP99-354, OP99-355	CO-2730
Law, Milne, Strathcona	Temex Resources Ltd. "Wilson Lake Project"	2001	M, DD(6)(497m), GL, SA	2.21077	CO-2731
Lebel	Goldaur Resources Inc. "Moffat-Hall Gold Property"	2000	sTr, rTr, GL, SA	2.20670	KL-4876
Lebel, Teck	Queenston Mining Inc.	2000	DD(7)(3252m), GL, SA	2.21374	KL-4936
Lorrain	Cabo Mining Corp. / Outcrop Explorations Limited "Pan Lake / Anderson Lake Property"	2000-2001	S, Pr, rTr. sTr	2.20692, 2.22130	CO-2733, CO-2735
Lorrain	Cabo Mining Corp. "Lang-Caswell Property"	2000	sTr, rTr, SA	2.20687	CO-2732
Lorrain	Legault, G. / Bigelow, V. "Valley Quartz Property"	1999-2000	DD(5)(145m), GL	2.20682	CO-2734
Lorrain	Simpson, M. / Wareing, S. "Gossan Claim Group"	2000-2001	Pr, sTr, SA, Gc	2.20946, 2.21954	CO-2737, CO-2736
Lorrain, South Lorrain	Cabo Mining Corp. "Cobalt Area Project"	2000-2001	SA	2.21796	CO-2738
Lundy	Canabrava Diamond Corporation "Frontenac Project"	2000	Lc, M	2.20823	CO-2739
Macmurchy	Goldeye Explorations Limited / KRL Resources Corp.	2000	DD (13)(863m), GL, SA	2.20972	CO-2740

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
MacMurchy	KRL Resources Corp. "Copper Hill Property"	2000	DGP	2.21741	CO-2741
MacMurchy	Strike Minerals "Caswell Property"	2001	DD, Tr, SA, GL, Gc	Donation	CO-2742
Maisonville	Fischer, P. "Maisonville Property-West Grid"	1999	GL, HLEM, IP, SA, Gc, M	OP99-419	KL-4914
Maisonville	Link, T.A. "Link-Maisonvillle Property"	1999-2001	SA	2.20831	KL-4874
Marriott, Stoughton	Newmont Canada Limited "Staz Property"	2001	DD(4)(1571m), GL, SA	2.22071	KL-4981
McCann, Playfair	Lightning River Resources Inc. "Wild Goose Project"	2000	Lc, IP, HLEM	2.21076	KL-4932
McCool	Prism Resources Inc. "Filo-Jones-Von Cardinal Option"	1999-2000	DD(5)(397m), GL, SA, Lc, HLEM, M	2.20738, 2.20739, 2.20737	KL-4862, KL-4863, KL-4879
McGarry	Armistice Resources Ltd. "Virginiatown Gold Project"	1996	DD(41)(2598m), SA, GL	NOHFC	KL-4975
McGarry	Cyprus Canada Inc. "Kerr Mine Project"	1993	DD(8)(2801m), GL, SA	NOHFC	KL-4972
McGarry	Salo, A. "Foxearth Property"	2000-2001	sTr, Pr, SA	2.21007, 2.22163, 2.22135, 2.22164, 2.22121	KL-4922, KL-4983, KL-4979, KL-4977, KL-4969
McGarry	Salo, A. "Salo-Ram Property"	2000-2001	Pr, sTr, SA, RE, GL, Gc	2.20689, 2.22110, 2.21776, 2.21778	KL-4893, KL-4970, KL-4945, KL-4948
McVittie	Harrington, M. "Harrington - Jon Pol Property"	1999	DD(3)(498m), GL, SA, Lc, M	OP99-037	KL-4909
McVittie	NFX Gold Inc. "Cheminis Mine Exploration Program"	1997	DD(22)(3316m), GL, SA	NOHFC	KL-4976
McVittie	Sudbury Contact Mines Limited "Lac McVittie Property PN-192"	2001	M	2.21663	KL-4931
Michaud	Homestake Canada Inc. "Perry Lake Property"	1998	DD(7)(2825m), GL, SA	2.20722	KL-4861

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Michaud	Moneta Porcupine Mines Inc. "Michaud Property"	2001	DD(1)(174m), DH(1)(211m), GL, SA	2.21286, 2.21708	KL-4934, KL-4947
Munro	559505 Ontario Limited "Munro 27"	2001	DD(1)(304m), GL	2.21012	KL-4899
Munro	Dyment, L.M. "Kidston/Dyment Property"	2000	DD(1)(479m), GL, SA, Gc	2.21391	KL-4938
North Williams	Highwood Resources Ltd. "North Williams Barite Property"	2000	GL, VLF-EM, M, DD(5)(774m), SA, Gc	2.21009	CO-2743
North Williams	Wallbridge Mining Company Limited "Kite Lake Property"	1999-2001	DD(2)(350m), GL, SA	2.21857	CO-2744
Playfair	Dyment, L.M. "CDK Playfair Property"	2000	Pr, sTr, SA	2.20777	KL-4871
Powell	Obradovich, T.J. "Matachewan Project"	2000	DD(11)(293m), GL, SA	2.20968	KL-4927
Rankin	Kretschmar, U / McMahon, J. "Rankin Lake Gold Project"	1999	Pr, GL, SA, Lc, M, Gc, Ug	OP99-398	CO-2745
Sharpe	Grabowski, R.J. "Grabowski Claims"	1999	Lc, Pr, SA	2.20828	KL-4921
Sheba	Windsor, G. "Sheba Township Project"	1999	Beep, SA	OP99-243	KL-4915
South Lorrain	Gore, J.A. "John Gore Property"	1999	sTr, Gc, SA, GL	OP99-041	CO-2746
South Lorrain	Gore, J.A. "Maidens Lake Property"	1999	DD(1)(148m), GL, SA	2.21008, 2.21065	CO-2747, CO-2748
South Lorrain	Gore, J.A. "Oxbow Lake, South Area"	2000	GL, SA, Gc	2.21064	CO-2749
South Lorrain	Hanes, D., MacLachlan, J., Plunkett, S. "Windy Lake Claims"	1999-2000	M, VLF-EM. Lc, Pr, SA, sTr, rTr, Gc	2.20684, 2.20970	CO-2750, CO-2751
South Lorrain	Wolverine Exploration and Mineral Recovery "Montreal River Claims"	2000	Pr, GL, SA	2.20981	CO-2752

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Stoughton	Bambic, P. / Henriksen, G.N. "Doe Property"	1999	Pr, Lc, M, VLF-EM, GL, SA, Gc	OP99-519, 2.21574	KL-4917, KL-4943
Strathcona	Temex Resources Ltd. "Milestone Property"	2000-2001	DD(3)(436m), GL, SA, Gc	2.21650, 2.21014	CO-2753, CO-2754
Strathcona	Wassenaar, W.	1999	Pr, GL, SA, M, VLF-EM, IP, Beep	2.20529	CO-2755
Strathy	Guppy, M.A. "Bernice Lake Property"	2001	Lc, M, VLF-EM	2.21944	CO-2756
Strathy	King, D.	2001	sTr, SA, Pr	2.21957	CO-2757
Strathy	Silver Century Explorations Ltd. "Vermillion Lake Grid"	1999	M, IP	2.20889	CO-2758
Strathy	Sudbury Contact Mines Ltd. "Goward Lake Option"	1999	IP, DD(4)(735m), GL, SA	2.20889, 2.20846	CO-2759, CO-2760
Strathy	Webster, B.	1999-2000	Lc, M, IP	2.21389, OP99-405	CO-2761, CO-2762
Teck	Boyce, E.	2000	sTr, DD(1)(82m), GL, SA	2.20780	KL-4902
Teck	Forbes, C.P. "Duffy Project"	N/A	GL	Donation	KL-4960
Teck	Gracie Murphy Claims	N/A	DD(12)(1138m), GL	Donation	KL-4963
Teck	Marion, E.J. "Project 2299"	2001	Lc, M, VLF-EM, GL	2.21504	KL-4952
Teck	Rivard, F. "Amikougami Project"	1999	Lc, M, IP, GL, SA, Gc	OP99-031	KL-4912
Tyrrell	Clark, A.H.	2000	SA	2.20644	CO-2763
Tyrrell	Goldeye Explorations Limited "Goldeye Zone Grid"	1999	IP, R	2.21734	CO-2764

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Tyrrell	Goldeye Explorations Limited "Hare Lake Grid"	1999	Lc, IP, M, DGP	2.21628	CO-2765
Tyrrell	Goldeye Explorations Ltd. "Tyrrell Knight Gold Area"	1998	RE, GL	2.20540	CO-2766
Tyrrell	MacCallum, R. "Hydro Creek Project"	1999-2000	DD(1)(44m), GL, SA, Gc	2.22126	CO-2768
Tyrrell	MacCallum, R. "Owl Lake Project"	2000	sTr, SA	2.20813	CO-2767
Tyrrell	O'Connor, T.A.	2000	sTr	2.20811	CO-2769
Walker	Cosby, Merle "M. Cosby Walker Property"	1999	IP	2.20894	KL-4896
Walker	Phelps Dodge Corporation of Canada Limited "Walker-Wilkie Property"	2000	DD(1)(164m), GL	2.20892	KL-4904
Walker, Wilkie	Falconbridge Limited "#127 Wilkie Twp. Property"	2001	Lc, PEM	2.20975	KL-4901
Warden	Tres-Or Resources Ltd. "Botany Project"	2001	DD(1)(150m), DD(1)(150 m), GL, SA, Gc	2.20893, 2.20875	KL-4897, KL-4888
Wilkie	Echo Bay Mines	2001	Lc, M	2.20870	KL-4884
Yarrow	Extender Minerals of Canada Ltd. "Yarrow Twp. Barite Property"	1994	DD(3)(213m), GL, SA	NOHFC	KL-4973
Yarrow	Glendinning,H. "Glendinning Barite Property"	N/A	rTr, SA	Donation	KL-4964

Table 4. Exploration activity in the Kirkland Lake Regional Resident Geologist District - 2001.

Abbreviations

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AM ..... Airborne magnetic survey
ARA .....Airborne radiometric survey
Beep .....Beep Mat survey
BS..... Bulk sampling
DD..... Diamond drilling
DDH..... Diamond drill hole(s)
DGP..... Down-hole geophysics
Gc ..... Geochemical survey
GL .....Geological Survey
GP.....Ground Geophysics unspecified type
Gv .....Gravity survey
HLEM .....Horizontal loop electromagnetic survey
IP..... Induced polarization survey
Lc..... Linecutting
M .....Ground magnetic survey
Met ..... Metallurgical testing
OvD .....Overburden drilling
ODH..... Overburden drill hole(s)
PEM ..... Pulse electromagnetic survey
Pr .....Prospecting
R ..... Resistivity survey
SA .....Sampling (other than bulk)
Seismic .....Seismic survey
SP .....Self-potential survey
sTr .....Stripping
rTr ..... Trenching
UG .....Underground exploration/development
VLEM..... Vertical loop electromagnetic survey
VLF-EM Very low frequency electromagnetic survey

Company/Individual (Occurrence Name) or Property	Township/Area	Exploration Activity*
See Table 3		
Temex Resources Corp. (Wilson Lake Property)	Askin, Law, Milne, Strathcona	DD(5), SA, Gc
Black Pearl Minerals Consolidated Inc.	Bannockburn	DD
Temex Resources Corp. (Caniptau PGE Project)	Best	SA
Cabo Mining Corp. (Cobalt Property)	Bucke, Coleman, Gillies Limit, Lorrain, South Lorrain	DD
Jonpol Explorations Limited / Aurado Exploration Ltd. (Garcon Mine Property)	Garrison	DD(3)(1303m), SA, GL
Queenston Mining Inc. / Franco-Nevada Mining Corporation Ltd.	Gauthier, Lebel	DD(5)(1859m), SA
Emporio Explorations Corporation (Whitney Lake Property)	Gillies Limit	Lc, HLEM, M, VLF-EM, IP
Canadian Arrow Mines Limited (Halliday Dome Project)	Halliday, Midlothian	DD(10)(2016m), SA, GL

Company/Individual (Occurrence Name) or Property	Township/Area	Exploration Activity*
Barrick Gold Corporation	Harker, Holloway	IP
Prairie C Resources Property Development	Lorrain	SA
KRL Resources Corp. (Copper Hill Property)	MacMurchy	DD(2)(198m), sTr, DD(7), SA
Transpacific Resources Inc.	McGarry	DD
Platinova Resources Ltd. (Case Tantalum Project)	Steele	DD, SA, GL
Strike Minerals Inc. (LaCarte Claims)	Tyrrell	sTr, DD, SA

* *Exploration activity is listed if known.*

Table 5. Property visits conducted by the Kirkland Lake Regional Resident Geologist and Staff in 2001.

Number (keyed to Figure 2)	Property/Occurrence (MDI Number)
1	Acana East, Best Twp. (31M04NE00040)
2	Acana West, Best Twp. (31M04NE00039)
3	Allsopp/Luoma Property, Black Twp.
4	Anoki, Gauthier Twp. (32D04SW00069)
5	Auriferous Quartz Boulders, Milligan Twp. (MDI42A09NE00072)[1]
6	G. Bastarache, Burt Twp.
7	Bidgood No. 1, Lebel Twp. (NEW)[1]
8	Bidgood No. 2, Lebel Twp. (32D04SW00073)
9	Burt, Dunmore, Holmes, Sheba Twp.
10	Camp Three Bay, Lake Abitibi[1]
11	Carbonatite Dike, Strathcona Twp. (31M04SW00079)
12	Castle Mine, Haultain Twp.
13	DDH KL 0509, 0510, 0511, 0512, McVittie Twp.
14	DDH KL 0861, Catharine Twp.
15	DDH KL 0882, Catharine Twp.
16	DDH KL 1733, Maisonville Twp.
17	DDH KL 2369, Flavelle Twp.
18	M. Dyment DDH 94-5, McCool Twp.
19	M. Dyment, McCool Twp.
20	Eunice Hill, Benoit Twp.
21	Goldaur, Zone 85-1, Lebel Twp. (32D04NW00023)
22	Gossan, Lorrain Twp.

Number (keyed to Figure 2)	Property/Occurrence (MDI Number)
23	Hydro Creek Project, Tyrell Twp.
24	Jackpot, Tudhope Twp. (41P09NW00046)
25	F. Kiernicki, Truax Twp. (N/A)
26	A. LaCarte, Tyrrell Twp.[1]
27	A. LaCarte, Tyrrell Twp.[1]
28	Long Point, Lake Abitibi[1]
29	MacCallum-LaCarte, Tyrrell Twp. (41P11NE00024)
30	MacDougald, Nicol Twp.
31	E. Marion, Dokis Twp.
32	Martin Bird, Hearst Twp. (32D04SE00143)
33	Matachewan Consolidated, Powell Twp.
34	J. McRae, Black Twp.
35	Merico Property, Tudhope Twp. (41P09NW00054)
36	Milestone, Strathcona Twp. (31M04SW00072, 31M04SW00077)
37	Milligan Pegmatite Boulders, Milligan Twp.[1]
38	Munro Asbestos, Munro Twp. (42A09SE00011)
39	Potter Mine, Munro Twp. (42A09SE00015)
40	Red Pine Point, Lake Abitibi
41	Round Lake, Otto Twp. (N/A)
42	Seed Kimberlite Pipe, Barr Twp.
43	Toburn, Teck Twp. (42A01NE00019)
44	Tyranite, Tyrrell Twp. (41P11NE00013)
45	Upper Beaver, Gauthier Twp. (32D04SW00068)
46	Victoria Creek Project, Gauthier Twp.
47	Vimy, Hislop Twp. (42A08NW00034)
48	White-Guyatt, Guibord Twp. (42A09SW00127)
49	R.J. Wright, Coleman Twp. (31M05NW00012)
50	Eby Township Copper-Gold Occurrence, Eby Township[1]

[1] *Described in "Property Examinations" section, this report.*
NEW – MDI number to be created
N/A – Does not meet the minimum requirements for an MDI

Table 6. Publications received by the Kirkland Lake Regional Resident Geologist Office in 2001.

Title	Author	Type and Year of Publication
A Comparison and Genesis of Three Vein Systems of the Ross Mine, Hislop Township Ontario	Akande, S.O.	M.Sc. Thesis University of Western Ontario, London, Ontario, 1977 (120080)
Regional Modern Alluvium Sampling Survey of the Temagami-Marten River Area, Northeastern Ontario	Allan, S.E.	Ontario Geological Survey, Open File Report 6043, 194p., 2001 (106043)

Title	Author	Type and Year of Publication
Summary of Field Work and Other Activities 2000	Ayer, J.A., Baker, C.L., Kelly, R.I., Parker, J.R., Stott, G.M. and P.C. Thurston	Ontario Geological Survey, Open File Report 6032, 2000 (106032)
Results of Regional Till Sampling for Kimberlite and Base Metal Indicator Minerals, Peterlong Lake - Radisson Lake Area, Northeastern Ontario	Bajc, A.F. and D.C. Crabtree	Ontario Geological Survey, Open File Report 6060, 65p., 2001 (106060)
Summary of Field Work and Other Activities 2001	Baker, C.L., Kelly, R. and J.R. Parker	Ontario Geological Survey, OFR 6070, 2001 (106070)
Magmatic Platinum Group Elements	Barrie, C.T.	Geology of Canadian Mineral Deposit Types pp. 605-614, 1996 (15192)
NODA Final Report 1996-1997	Brown, H., Owsiacki, L. and M. Walters	Natural Resources Canada and Ministry of Northern Development and Mines, 1997 (107011)
Metallogeny of the Grenville Province, Southeastern Ontario	Carter, T.R.	Ontario Geological Survey, Open File Report 5515, 422 p., 1984 (105515)
The Use of Microchemical Analysis of Alluvial Gold Grains in Mineral Exploration: Experiences in Britain and Ireland	Chapman, R.J., Leake, R.C. and N.R. Moles	Journal of Geochemical Exploration 71 (2000) pp.241-268, 2000 (15189)
Superior PGE 2001	CIM Geological Society	CIM Geological Society Field Conference September 16 - 19, 2001 Thunder Bay, Ontario, 2001 (149046)
Volcanic Stratigraphy of the Late Archean Kidd-Munro Assemblage in Dundonald and Munro Townships and Genesis of Associated Ni and Cu-Zn VMS Deposits, Abitibi Greenstone Belt, Ontario, Canada	Davis, P.C.	M.Sc. Thesis University of Alabama, Tuscaloosa, Alabama, 1997 (120081)
Geochronology and Radiographic Isotope Geochemistry of Plutonic Rocks from the Central Abitibi Subprovince: Significance to the Internal Subdivision and Plutono-tectonic Evolution of the Abitibi Belt.	Davis, W.J., Lacroix, S., Gariepy, C. and N. Machado	Canadian Journal of Earth Sciences 37 pp.117 - 133, 2000 (15198)

Title	Author	Type and Year of Publication
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81672, scale 1:50000, 2001 (481672)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81673, scale 1:50000, 2001 (481673)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81674, scale 1:50000, 2001 (481674)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81675, scale 1:50000, 2001 (481675)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81676, scale 1:50000, 2001 (481676)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81677, scale 1:50000, 2001 (481677)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81678, scale 1:50000, 2001 (481678)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81679, scale 1:50000, 2001 (481679)
Kapuskasing-Chapleau Area Aeromagnetic Survey – Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81680, scale 1:50000, 2001 (481680)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81681, scale 1:50000, 2001 (481681)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81682, scale 1:50000, 2001 (481682)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81683, scale 1:50000, 2001 (481683)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81684, scale 1:50000, 2001 (481684)

Title	Author	Type and Year of Publication
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81685, scale 1:50000, 2001 (481685)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81686, scale 1:50000, 2001 (481686)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81687, scale 1:50000, 2001 (481687)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81688, scale 1:50000, 2001 (481688)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81689, scale 1:50000, 2001 (481689)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81690, scale 1:50000, 2001 (481690)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81691, scale 1:50000, 2001 (481691)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81692, scale 1:50000, 2001 (481692)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81693, scale 1:50000, 2001 (481693)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81694, scale 1:50000, 2001 (481694)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81695, scale 1:50000, 2001 (481695)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81696, scale 1:50000, 2001 (481696)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81697, scale 1:50000, 2001 (481697)

Title	Author	Type and Year of Publication
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81698, scale 1:50000, 2001 (481698)
Kapuskasing-Chapleau Area Aeromagnetic Survey - Total Magnetic Field	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81699, scale 1:50000, 2001 (481699)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81700, scale 1:50000, 2001 (481700)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81701, scale 1:50000, 2001 (481701)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81702, scale 1:50000, 2001 (481702)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81703, scale 1:50000, 2001 (481703)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81704, scale 1:50000, 2001 (481704)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81705, scale 1:50000, 2001 (481705)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81706, scale 1:50000, 2001 (481706)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81707, scale 1:50000, 2001 (481707)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81708, scale 1:50000, 2001 (481708)

Title	Author	Type and Year of Publication
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81709, scale 1:50000, 2001 (481709)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81710, scale 1:50000, 2001 (481710)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81711, scale 1:50000, 2001 (481711)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81712, scale 1:50000, 2001 (481712)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81713, scale 1:50000, 2001 (481713)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81714, scale 1:50000, 2001 (481714)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81715, scale 1:50000, 2001 (481715)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81716, scale 1:50000, 2001 (481716)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81717, scale 1:50000, 2001 (481717)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81718, scale 1:50000, 2001 (481718)

Title	Author	Type and Year of Publication
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81719, scale 1:50000, 2001 (481719)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81720, scale 1:50000, 2001 (481720)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81721, scale 1:50000, 2001 (481721)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81722, scale 1:50000, 2001 (481722)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81723, scale 1:50000, 2001 (481723)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81724, scale 1:50000, 2001 (481724)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81725, scale 1:50000, 2001 (481725)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81726, scale 1:50000, 2001 (481726)
Kapuskasing-Chapleau Area Aeromagnetic Survey - First Vertical Derivative with Keating Correlation Coefficient Anomalies	Dumont, R., Coyle, M. and Potvin, J. Geological Survey of Canada	Ontario Geological Survey, Map 81727, scale 1:50000, 2001 (481727)
Gold!!! and Other Metals: How They Are Found and Mined	Gammon, J.B.	M.S.S. Ltd - Mining Software Services Ltd. and The Institution of Mining and Metallurgy, 1988 (15188)

Title	Author	Type and Year of Publication
Geology of the Mann Intrusive Complex and Exidence for Pt-Rich Hydrothermal Platinum-Group Elements	Good, D.J. and J.H. Crocket	Economic Geology 10 pp. 613-626, 1999 (15190)
Effective Use and Interpretation of Lithogeochemical Data in Regional Mineral Exploration Programs: Application of GIS Technology	Harris, J.R., Wilkinson, L. and E.C. Grunsky	Ore Geology Reviews 16 pp.107 - 143, 2000 (15196)
Techniques for Analysis and Visualisation of Lithogeochemical Data with Applications to the Swayze Greenstone Belt, Ontario	Harris, J.R., Wilkinson, L., Grunsky, E., Heather, K. and J. Ayer	Journal of Geochemical Exploration 67 pp.301 - 334, 1999 (15195)
Application of GIS Processing Techniques for Producing Mineral Prospectivity Maps – A Case Study: Mesothermal Au in the Swayze Greenstone Belt, Ont.	Harris, J.R., Wilkinson, L., Heather, K., Fumerton, S., Bernier, M.A., Ayer, J. and R. Dahn	Unpublished (15197)
Elimination of Fibrous Impurity Above 5 Microns in Hedmanite Lizardite Powder Filler	Hedman Resources Limited	Mangan, J.J., NOHFC Research Project, 1992 (15187)
Market Study On Lime Consumption in Northeastern Ontario and Northwestern Quebec	I.M.D. Laboratories Ltd.	I.M.D. Laboratories Ltd. (for Dymond Clay Products), 1988 NOHFC Study, 1988 (15186)
Precambrian geology, Yarrow and Doon townships, with emphasis on the Huronian Supergroup	Junnila, R.M.	Ontario Geological Survey, Report 277, 33p, 1990 (101277)
Inorganic Chemicals: Prospects for Ontario's Industrial Minerals	Law, Sigurdson & Associates and SRI International	Ontario Ministry of Northern Development and Mines, Industrial Mineral Background Paper 11, 93p., 1989 (110011)
Reconnaisance-scale till survey in the New Liskeard – Temagami region, Ontario: kimberlite indicator minerals and geochemistry	McClenaghan, M.B., Kjarsgaard, B.A., Kjarsgaard, I.M.	Geological Survey of Canada, Open File 4086, 92p., 2001 (119086)
Mineralogy and Geochemistry of the Peddie Kimberlite and Associated Glacial Sediments, Lake Timiskaming, Ontario	McClenaghan, M.B., Kjarsgaard, B.A., Kjarsgaard, I.M., Paulen, R.C., Stirling, J.A.R.	Geological Survey of Canada, Open File 3775, 190p., 1999 (119085)

Title	Author	Type and Year of Publication
Report of Activities 2000, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Kirkland Lake and Sudbury Districts	Meyer, G., Cosec, M., Grabowski, G.P.B., Guindon, D.L., Hailstone, M., Stephenson, C., Wallace, L.M., Debicki, R. and Yule, G.	Ontario Geological Survey, Open File Report 6051, 113p., 2001 (106051)
Geology of the Lac Des Iles Palladium Deposit	North American Palladium Ltd.	Site Visit Guidebook: Northwestern Ontario Mines and Minerals Symposium, 2000 (15191)
Exploration 2000 Abstracts	Northeast Ontario Mines & Minerals Symposium	Northeast Ontario Mines & Minerals Symposium, Kirkland Lake, 2000 (15201)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Amyot-Browning Area	OGS	Ontario Geological Survey, Map 60001-Rev, scale 1:50000, 2001 (460001)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Cobalt Area	OGS	Ontario Geological Survey, Map 60004-Rev, scale 1:50000, 2001 (460004)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Temagami South Area	OGS	Ontario Geological Survey, Map 60092-Rev, scale 1:50000, 2001 (460092)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Temagami South Area	OGS	Ontario Geological Survey, Map 60093-Rev, scale 1:50000, 2001 (460093)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Temiskaming Area	OGS	Ontario Geological Survey, Map 60100-Rev, scale 1:50000, 2001 (460100)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Temiskaming Area	OGS	Ontario Geological Survey, Map 60101-Rev, scale 1:50000, 2001 (460101)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Temiskaming Area	OGS	Ontario Geological Survey, Map 60102-Rev, scale 1:50000, 2001 (460102)
First Vertical Derivative of the Magnetic Field and Keating Coefficient - Temiskaming Area	OGS	Ontario Geological Survey, Map 60103-Rev, scale 1:50000, 2001 (460103)
Residual Magnetic Field and Electromagnetic Anomalies - Matheson Area	OGS	Ontario Geological Survey, Map 82025, scale 1:50000, 2000 (482025)

Title	Author	Type and Year of Publication
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Matheson Area	OGS	Ontario Geological Survey, Map 82026, scale 1:50000, 2000 (482026)
Decay Constant and Electromagnetic Anomalies - Matheson Area	OGS	Ontario Geological Survey, Map 82027, scale: 1:50000, 2000 (482027)
Residual Magnetic Field and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82047, scale 1:50000, 2000 (482047)
Residual Magnetic Field and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82049, scale 1:50000, 2000 (482049)
Residual Magnetic Field and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82050, scale 1:50000, 2000 (482050)
Residual Magnetic Field and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82051, scale 1:50000, 2000 (482051)
Residual Magnetic Field and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82052, scale 1:50000, 2000 (482052)
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82053, scale 1:50000, 2000 (482053)
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82054, scale 1:50000, 2000 (482054)
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82055, scale 1:50000, 2000 (482055)
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82056, scale 1:50000, 2000 (482056)

Title	Author	Type and Year of Publication
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82057, scale 1:50000, 2000 (482057)
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82058, scale 1:50000, 2000 (482058)
Decay Constant and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82059, scale 1:50000, 2000 (482059)
Decay Constant and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82060, scale 1:50000, 2000 (482060)
Decay Constant and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82061, scale 1:50000, 2000 (482061)
Decay Constant and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82062, scale 1:50000, 2000 (482062)
Decay Constant and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82063, scale 1:50000, 2000 (482063)
Decay Constant and Electromagnetic Anomalies - Kirkland Lake Area	OGS	Ontario Geological Survey, Map 82064, scale 1:50000, 2000 (482064)
Residual Magnetic Field and Electromagnetic Anomalies - Temagami Area	OGS	Ontario Geological Survey, Map 82070, scale 1:50000, 2000 (482070)
Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients - Temagami Area	OGS	Ontario Geological Survey, Map 82071, scale 1:50000, 2000 (482071)
Decay Constant and Electromagnetic Anomalies - Temagami Area	OGS	Ontario Geological Survey, Map 82072, scale 1:50000, 2000 (482072)
Airborne magnetic and electromagnetic surveys, apparent conductivity and electromagnetic anomalies, Matheson area	OGS	Ontario Geological Survey, Map 82217, scale 1:50000, 2001 (482217)

Title	Author	Type and Year of Publication
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Kirkland Lake area	OGS	Ontario Geological Survey, Map 82218, scale 1:50000, 2001 (482218)
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Kirkland Lake area	OGS	Ontario Geological Survey, Map 82219, scale 1:50000, 2001 (482219)
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Kirkland Lake area	OGS	Ontario Geological Survey, Map 82220, scale 1:50000, 2001 (482220)
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Kirkland Lake area	OGS	Ontario Geological Survey, Map 82221, scale 1:50000, 2001 (482221)
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Kirkland Lake area	OGS	Ontario Geological Survey, Map 82222, scale 1:50000, 2001 (482222)
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Kirkland Lake area	OGS	Ontario Geological Survey, Map 82223, scale 1:50000, 2001 (482223)
Airborne magnetic and electromagnetic surveys, apparent conductance and electromagnetic anomalies, Temagami area	OGS	Ontario Geological Survey, Map 82224, scale 1:50000, 2001 (482224)
Montreal River Headwaters Area Lake Sediment Survey, Northern Ontario: Gold and PGE Data - Operation Treasure Hunt	OGS	Ontario Geological Survey, Open File Report 6061, 54p., 2001 (106061)
Results of Modern Alluvium Sampling, Coral Rapids Area, Northeastern Ontario: Operation Treasure Hunt – Kapuskasing Structural Zone	OGS	Ontario Geological Survey, Open File Report 6068, 117p., 2001 (106068)
Dimension Stone: A Guide to Prospecting and Developing	Papertzian, C. and D. Farrow	Ontario Geological Survey, Open File Report 5920, 82p., 1995 (105920)
Overview of the Agrium Kapuskasing Phosphate Operation	Pressacco, R.	Agrium - Kapuskasing Phosphate Operations (15194)

Title	Author	Type and Year of Publication
Enhanced Resolution of Geological Structures from Magnetic Data: An Example from the Abitibi Greenstone Belt of Northern Ontario	Prevec, L. and W.A. Morris	Canadian Journal of Earth Sciences 38 pp. 963 - 974, 2001 (15199)
A Compilation of References for Kimberlite, Diamond and Related Topics	Sage, R.P. and Gareau, T.	Ontario Geological Survey, OFR 6067, 2001 (106067)
Fine China, Trials with Ontario Minerals	Salt, D.N.S.	Ontario Ministry of Northern Development and Mines, Industrial Mineral Background Paper 8, 29p., 1988 (110008)
Sudbury-Type Breccias in the Huronian Gowganda Formation Near Whitefish Falls, Ontario: Products of Diabase Intrusion Into Incompletely Consolidated Sediments?	Shaw, C.S.J., Young, G.M. and C.M. Fedo	Canadian Journal of Earth Sciences 36 pp.1435 – 1448, 1999 (15200)
Abstracts for Diamonds in Eastern Canada	Toronto Geological Discussion Group	Toronto Geological Discussion Group, 2000 (15193)
Bats and Mines	Tuttle, M.D. and D.A.R. Taylor	Bat Conservation International, Inc. Reource Publication No. 3, 1988 (15202)

Table 7. Mineral deposits not being mined in the Kirkland Lake Regional Resident Geologist District in 2001.

Abbreviations

AF ..... Assessment Files
CMH ..... Canadian Mines Handbook
GR..... Geological Report
MDC .....Mineral Deposit Circular
MDIR..... Mineral Deposit Inventory record
MLS.....Mining Lands, Sudbury
MR .....Mining Recorder
NM .....The Northern Miner
OFR.....Open File Report
PC..... Personal Communication

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
180 East (Lebel)	Au 32D04SW00339	360 000 tons avg. 0.12 ounce/ton Au	Queenston Mining Inc. (50%) - Franco-Nevada Mining Corporation Limited (50%) (CMH 2001-2002, p.311)	CMH 2001-2002, p.311	Inactive
Adams Mine (Boston, Lebel)	Fe 32D04SW00013	12 years open pit reserves at time of mine closure. Underground resources unknown.	N/A	N/A	Inactive
Ajax (Strathy)	Cu, Ni, Au, Ag, PGE 31M04SW00022	2 062 505 tons of 0.412% Cu, 0.257% Ni; veins can average 2.9% Ni, 4.0% Cu, 2 g/t Au, 3.4 g/t Pt	Northern Platinum Ltd. (55%) (CMH 2001-2002, p. 273)	CMH 2001-2002, p. 273	Inactive
Amalgamated Kirkland (Teck)	Au 42A01SE00151	1 983 000 tons avg. 0.16 ounce/ton Au	Franco-Nevada Mining Corporation Limited (50%) - Queenston Mining Inc. (50%) (CMH 2001-2002, p.311)	CMH 2001-2002, p. 311	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Anoki (Gauthier)	Au 32D04SW00069	1 182 000 tons avg. 0.12 ounce/ton Au	Queenston Mining Inc. (50%) - Franco-Nevada Mining Corporation Limited (50%) (CMH 2001-2002, p. 311)	CMH 2001-2002, p. 311	Active
Armistice (McGarry)	Au 32D04SE00013	433 981 tons of 0.250 ounce/ton Au	Armistice Resources Ltd. (75%) – Sheldon-Larder Mines Limited (25%) (CMH 2001-2002, p.35)	CMH 2001-2002, p.35	Inactive
Barber Larder (McGarry)	Au 32D04SE00043	60 000 tons of 0.16 oz per ton Au	NFX Gold Inc. (56.25%) - Gwen Resources Ltd. (CMH 2001-2002, p.264)	CMH 1990-91, p.338	Inactive
Blue Quartz (Beatty)	Au 42A09SW00130	109 000 tons of 0.484 oz per ton Au	Thundermin Resources Ltd. (50%) – River Gold Mines Ltd. (CMH 2001-2002, p.364)	NM, March 20, 1980	Inactive
Boston Creek (Pacaud)	Au 31M13NW00053	330 000 tonnes of 4.2 g/T Au	Atapa Minerals Limited (50%) - Teck Corporation (CMH 2001-2002, p.38)	CMH 1998-99, p.52	Inactive
Buffonta (Garrison)	Au 32D05NW00009	400 000 tons of 0.15 oz per ton Au	Gwen Resources Ltd. (60%) - AJ Perron Gold Corporation (40%)(CMH 1996-97, p.26)	CMH 1997-98, p.221	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Cheminis (McVittie)	Au 32D04SE0001 9	2.9 million tons avg. 0.17 ounce/ ton Au	NFX Gold Inc. (75%) – Fort Knox Gold Resources Inc. (25%). (CMH 2001-2002, p.264)	CMH 2001-2002, p.264	Inactive
Clenor (Strathy)	Au, Ag 31M04SW000 88	24 000 tons of 0.21 oz per ton Au, 1.8 oz per ton Ag	Gwen Resources Ltd. (CMH 1997-98, p.220)	GR 163	Inactive
Commodore (Lebel)	Au NEW	738 000 tons of 0.07 oz per ton Au inferred with a higher grade zone of 307 000 tons of 0.11 oz Au per ton inferred	H.Egg, AF (Sudbury Contact Mines Limited)	AF	Inactive
Creek Zone (Hislop)	Au 42A08NW001 42	1.1 million tons of 0.186 oz per ton Au	Stroud Resources Ltd. (CMH 2001-2002, p.352)	CMH 2001-2002, p.352	Inactive
Diadem (Strathcona)	Cu, Ni 31M04SW000 77	450 000 tons of 0.5% Cu, 0.1% Ni to 400 feet	Teck Corporation – Cominco Ltd.	MDIR N 0045	Active
Eastmaque (Teck)	Au 42A01NE000 43	2 132 500 tons of tailings of 0.035 oz per ton Au	Hecla Mining Company (Eastmaque to Equinox Resources Ltd to Hecla in 1994) (CMH 1996-97, p.207-208)	CMH 1991-92, p.142	Inactive
Fenn-Gib (Guibord)	Au 42A09SE0005 4 42A09SE0018 7	1.95 million t of 5.13 g/t Au above 250 m level	Pangea Goldfields Inc. (100% Gib, 70% Fenn, 30% Homestake Canada Inc.) (CMH 2000-2001, p.312)	CMH 2000-2001, p.312	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Fort Knox (Fawcett, Ogilvie, North Williams)	Cu, Ni NEW	750 000 tons	Fort Knox Gold Resources Inc. – Inco Limited (CMH 2001-2002, p.149)	AF	Inactive
Garrcon (Garrison)	Au 32D12SW000 04	350 900 tons of 0.191 oz per ton Au	Moneta Porcupine Mines Inc. – Jonpol Explorations Limited (OFR 5735, p.766, CMH 2001-2002, p.249)	Jonpol Explorations Limited News Release, February 2, 1988	Inactive
Glimmer Mine (Hislop, Beatty)	Au 42A09SW001 65	777 982 t of 8.92 g/t Au	Exall Resources Limited (52%) – Glimmer Resources Inc. (48%) (CMH 2001-2002, p. 161)	Glimmer Resources Inc., Press Release, May 30, 2001.	Inactive
Golden Harker (Harker, Holloway)	Au 32D05NW001 59	500 000 tons of 0.16 oz per ton Au	Golden Harker Explorations Limited (CMH 2001-2002, p.168)	NM, March 7, 1988	Inactive
Gordon Lake (Tyrrell)	Au 41P10NW000 06	225 000 tons of 0.20 oz per ton Au to 750 feet	Duncan Gold Resources Inc. – Dalhousie Oil Company Ltd. (AF)	AF	Inactive
Hislop Gold Mine (Hislop)	Au	438 000 tons avg. 0.22 oz per ton Au	St. Andrew Goldfields Ltd. (CMH 2001-2002, p.346)	CMH 2001-2002, p.346	Inactive
Hislop West (Hislop)	Au 42A09SW000 33	19 230 tons of 0.59 oz per ton Au	N/A	OFR 5735, p.1070	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Hydro Creek (Tyrrell)	Au 41P11NE0002 4	535 000 tons of 0.13 oz per ton Au resource	Orogrande Resources Inc. (Orogrande Resources Inc. Press Release May 7, 1998)	Orogrande Resources Inc. Press Release May 7, 1998	Inactive
Iris (Harker)	Au, W 32D05NW000 21	769 756 tons of 0.07 oz per ton Au	The Alberta Gold Corporation (55%) – Perrex Resources Inc. (45%) (CMH 1995-96 p.289)	AF KL-3170	Inactive
Leckie (Strathy)	Au 31M04SW000 90	405 000 tons of 0.2 oz per ton Au	Stroud Resources Ltd. (CMH 2000-2001, p.372)	CMH 2000-2001, p.372	Inactive
Ludgate (Michaud, Guibord, Garrison)	Au 42A08NE001 59	462 000 tonnes of 5.91 g/t Au	Kinross Gold Corporation (60%) – Coniagas Resources Limited (40%) (CMH 2001-2002, p.98)	TNM February 1, 1999 p. 2.	Inactive
Macassa (Teck)	Au 42A01SE0002 0	3 582 000 t avg. 11.4 g/t Au	Foxpoint Resources Ltd. (Foxpoint Resources Ltd. Press Release November 30, 2001)	CMH 2001-2002, p.217	Inactive
Martin-Bird (Hearst)	Au 32D04SE0014 3	558 000 tons of 0.114 oz per ton Au	Barrick Gold Corporation (AF KL-3752)	AF KL-3752	Inactive
Matachewan (Powell)	Au 41P15NE0001 4 41P15NE0001 7	10 549 000 tons of 0.058 oz per ton Au	T. O'Bradovich (PC)	CMH 1998-99, p.398	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
McBean (Gauthier)	Au 32D04SW00060	1 718 900 tons avg. 0.15 oz per ton Au	Queenston Mining Inc. (50%) – Franco-Nevada Mining Corporation Limited (50%) (CMH 2001-2002, p.311)	CMH 2001-2002, p.311	Inactive
Newfield (Garrison)	Au 32D12SW000042	450 000 tons of 0.28 oz per ton Au	Jonpol Explorations Limited (64.3%) – Aurado Exploration Ltd. (35.7%) (CMH 2001-2002, p.212)	CMH 1996-97, p.243 and Jonpol Explorations Limited, Project Progress Report, April 10, 1997	Inactive
Omega (McVittie)	Au 32D04SE00017	720 854 tons of 0.16 oz per ton Au	Greater Lenora Resources Corp. (CMH 2001-2002, p.177)	CMH 2001-2002, p.177	Inactive
Potter (Munro)	Cu, Zn, Ag, Au, Co 42A09SE00015	Not available	Millstream Mines Ltd. (CMH 2001-2002, p.244)		Inactive
Ramp Property (Beatty, Carr, Coulson, Wilkie)	Au 42A09SW00133	813 414 tons of 0.24 oz per ton Au	Globex Mining Enterprises Inc. (www.globexmining.com)	Globex Mining Enterprises, News Release, August 13, 2001	Inactive
Ross (Hislop)	Au 42A08NW00005	1 055 000 tons of 0.125 oz per ton Au	Preston Electrical and Mechanical Ltd. (sold by Giant Yellowknife Mines Limited in 1989 CMH 1990-91, p.188)	CMH 1989-90, p.188	Inactive
Sherman Mine (Chambers, Strathcona, Strathy)	Fe 31M04SW00025	5 years open pit reserves at time of mine closure. Underground resources unknown.	N/A	Northern Daily News, March 7, 1989	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Southwest Zone (Michaud)	Au 42A08NE000 38	2 360 000 t avg. 6.07 g/t Au	Moneta Porcupine Mines Inc. (CMH 2001-2002, p.249)	CMH 2001-2002, p.249	Inactive
Taylor (Taylor)	Au 42A10SE0006 6 42A10SE0006 5 New	2 716 000 tons avg. 0.22 oz per ton Au	St Andrew Goldfields Ltd. (CMH 2001-2002, p.346)	CMH 2001-2002, p.346	Active
Teck Hughes (Teck)	Au 42A01NE000 20	375 000 tons of 0.2 oz per ton Au	Foxpoint Resources Ltd. (Foxpoint Resources Ltd. Press Release November 30, 2001)	CMH 1991-92, p.270	Inactive
Temagami Copper (Phyllis)	Cu, Ni 41I16NE0000 4	770 000 tons of 1.04% Cu, 0.46% Ni	Teck Corp. – Cominco Ltd. (AF)	AF	Inactive
Tyranite (Tyrrell, Knight)	Au 41P11NE0001 3	567 000 tons of 0.18 oz per ton Au	Mill City International Inc. (50%) – (CMH 2001-2002, p.243)	NM 06/93	Inactive
Upper Beaver (Gauthier)	Au, Cu 32D04SW000 68	180 000 t of 8.6 g/t Au, 1.2% Cu	Queenston Mining Inc. (Queenston Mining Inc. Press Release January 5, 2000)	Queenston Mining Inc. 1999 Annual Report	Active
Upper Canada	Au 32D04SW000 57	2 093 800 tons avg. 0.20 oz/t Au	Queenston Mining Inc. (50%) – Franco-Nevada Mining Corporation Limited (50%) (CMH 2001-2002, p.311)	CMH 2001-2002, p.311	Inactive
Victoria Creek (Gauthier)	Au NEW	4 958 000 t of 3.43 g/t Au	Sudbury Contact Mines Limited (CMH 2001-2002, p.352)	CMH 1998-99, p.429	Inactive

Table 8. Summary of Activities of the Kirkland Lake Regional Resident Geologist Office - 2001.

Activity	Number
Office Visits	2951
Telephone Inquiries	1649
Properties Visited	49
Field Trips Attended	5
Field Trips Given	4
Talks Given	3
Assessment Files and Donations Processed	180
OPAP/Heritage Fund Reports Processed	44
Titles Added to Library Database	131
Drill Holes Added to Drill Core Library	0
MDI Records Updated	47
MDI Records Deleted	0
MDI Records Added	11
MDI Records Deepened	8

Table 9. Gold production in the Kirkland Lake Regional Resident Geologist District – 2001.

Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Aljo	Beatty	2,333	42	0.018	1940
American Eagle	Munro	60	40	0.667	1911
Argyll	Beatty	12,455	851	0.068	1918
Armistice	McGarry	8,282	1,035	0.125	1995, 97 (bulk samples)
Ashley	Bannockburn	157,076	50,123	0.319	1932-36
Barber Larder	McGarry	30,118	3,072	0.102	1988
Barry Hollinger	Pacuad	267,741	77,000	0.288	1918,25-36,44-46
Bidgood	Lebel	586,367	160,184	0.273	1934-51
Blue Quartz	Beatty	500	81	0.162	1923,26,28,34
Bourkes	Benoit	1,298	277	0.213	1918,36-38
Buffonta	Garrison	117,013	12,139	0.104	1981,91-92
Canadian Arrow	Hislop	279,593	17,045	0.061	1980-83
Canamax (Matheson Project)	Holloway	38,675	5,391	0.139	1988
Cathroy Larder (Mirado)	McElroy	89,719	10,231	0.114	1941-44,47,57,87
Centre Hill**	Munro	327,007	422	0.001	1967-70
Cheminis	McVittie	179,013	17,530	0.098	1991-96
Chesterville	McGarry	3,260,439	358,880	0.110	1930-52

Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Croesus	Munro	5,333	14,859	2.786	1915-18,23,31-36
Eastmaque (tailings)	Teck	1,051,744	28,740	0.027	1988-91
Ethel Copper**	James	17,477	115	0.007	1962-67
Gateford (Swastika)	Teck	103,684	30,068	0.290	1910-47***
Glimmer*	Hislop	1,212,592	209,926	0.173	1997-2001
Golden Summit	Maisonville	737	57	0.077	1936-37,45
Gold Hill	Catharine	4,616	660	0.143	1927-28
Gold Pyramid	Guibord	175	36	0.206	1911
Hislop Mine (Hislop East)	Hislop	388,724	48,679	0.125	1990-91,93-95,99-2000
Holloway Mine*	Holloway	2,934,121	525,305	0.179	1993,95(preproduction), 96-
Holt-McDermott*	Holloway	6,758,364	1,094,671	0.162	1988-
Hudson-Rand	Teck	6,496	483	0.074	1922
Kerr	McGarry	40,336,512	10,457,441	0.259	1911,38-96
Kirkland Lake	Teck	3,140,283	1,172,955	0.374	1916-60
Kirkland Townsite	Teck	4,230	1,921	0.454	1958-59
Laguerre	McVittie	40,514	7,568	0.187	1937-39
Lake Shore	Teck	17,208,323	8,602,791	0.500	1918-65,82-87,97-98
Macassa	Teck	7,877,532	3,525,389	0.448	1933-99
Macassa (Tailings)	Teck	3,117,181	163,761	0.053	1987-99
Matachewan Consolidated	Powell	3,525,200	378,101	0.107	1934-54
McBean	Gauthier	557,621	45,900	0.082	1984-86
Miller Independence	Pacaud	31	59	1.903	1918
Moffat-Hall	Lebel	16,388	4,780	0.292	1934-35
Morris Kirkland	Lebel	127,253	16,999	0.134	1936-38,40-42
New Telluride	Skead	104	62	0.596	1931-32
Newfield	Garrison	55,000	9,680	0.176	1996(bulk sample)
Omega	McVittie	1,615,081	214,098	0.133	1913,26-28,36-47
Queenston	Gauthier	1,054	177	0.168	1941
Ronda	Macmurchy	24,592	2,727	0.111	1939
Ross	Hislop	6,714,482	995,832	0.148	1936-89
Ryan Lake**	Powell	188,790	1,352	0.007	1948-57,62-64
Stairs	Midlothian	15,835	3,573	0.226	1965-66
Sylvanite	Teck	5,049,536	1,674,808	0.332	1927-61

Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Teck Hughes	Teck	9,565,302	3,709,007	0.388	1917-68
Toburn	Teck	1,186,316	570,659	0.481	1917-68***
Tyranite	Tyrrell	223,810	31,352	0.140	1939-42
Upper Beaver	Gauthier	580,562	140,709	0.242	1913-72***
Upper Canada	Gauthier	4,648,984	1,398,291	0.301	1938-71
White-Guyatt	Munro	50	10	0.200	1911
Wright Hargreaves	Teck	9,934,327	4,821,296	0.485	1921-65
Young Davidson	Powell	6,218,272	585,690	0.094	1934-57
Total including tailings		**138,814,917**	**41,204,930**	**0.297**	
Total excluding tailings		**135,645,992**	**41,012,429**	**0.302**	
Kirkland Lake Camp (West to East)					
Macassa	Teck	7,877,532	3,525,389	0.448	
Kirkland Lake	Teck	3,140,283	1,172,955	0.374	
Teck Hughes	Teck	9,565,302	3,709,007	0.388	
Lake Shore	Teck	17,208,323	8,602,791	0.500	
Wright Hargreaves	Teck	9,934,327	4,821,296	0.485	
Sylvanite	Teck	5,049,536	1,674,808	0.332	
Toburn	Teck	1,186,316	570,659	0.481	
Total		**53,961,619**	**24,076,905**	**0.446**	
Kirkland Lake Tailings					
Eastmaque (tailings)	Teck	1,051,744	28,740	0.0273	
Macassa (Tailings)	Teck	3,117,181	163,761	0.0525	
Total		**4,168,925**	**192,501**	**0.046**	
Virginiatown Camp					
Chesterville	McGarry	3,260,439	358,880	0.1101	
Kerr	McGarry	40,336,512	10,457,441	0.2593	
Total		**43,596,951**	**10,816,321**	**0.248**	

Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Holloway Camp					
Holloway Mine*	Holloway	2,934,121	525,305	0.179	
Holt-McDermott*	Holloway	6,758,364	1,094,671	0.162	
Total		**9,692,485**	**1,619,976**	**0.167**	
Hislop Camp					
Glimmer*	Hislop	1,212,592	209,926	0.173	
Hislop Mine (Hislop East)*	Hislop	388,724	48,679	0.125	
Ross	Hislop	6,714,482	995,832	0.148	
Total		**8,315,798**	**1,254,437**	**0.151**	
Matachewan Camp					
Matachewan Consolidated	Powell	3,525,200	378,101	0.107	
Young Davidson	Powell	6,218,272	585,690	0.094	
Total		**9,743,472**	**963,791**	**0.099**	

* *Producer in 2001*
** *Base Metal Production*
*** *Intermittent Production*

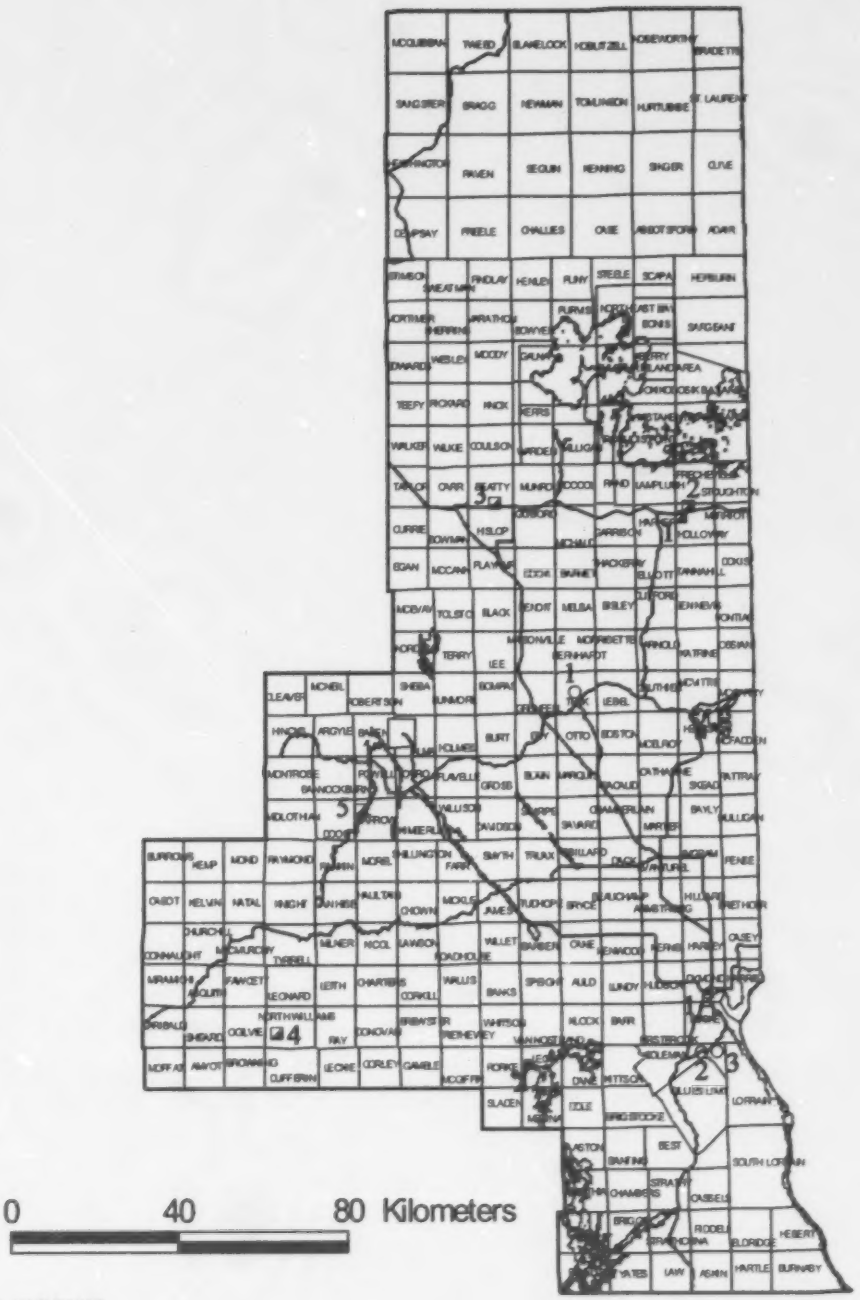
Table 10. Kimberlite in Kirkland Lake Regional Resident Geologist District–2001 (see Figure 3).

NO.	PIPE NAME	TWP.	LAT.	LONG.	NORTH*	EAST*	DIAMONDS
1	95-1	Lundy	47.538193	79.929535	5265200	580800	No
2	95-3	Lundy	47.523342	79.891632	5263700	583440	Yes
3	96-1	Lundy	47.538193	79.920685	5265500	581420	Yes
4	A-1	Arnold	48.25336	79.87783	5344851	583300	No
5	A-4 (Alfie Creek 1) (North)	Arnold	48.22144	79.88068	5341299	583141	No
6	A-4 (Alfie Creek 2) (South)	Arnold	48.21789	79.88507	5340900	582820	Yes
7	AM-47 (Nelson Lake)	Arnold, Morrisette	48.23677	79.88392	5343000	582875	No
8	B-30 (Nickila Lake)	Bisley	48.28433	79.91759	5348250	580301	Yes

NO.	PIPE NAME	TWP.	LAT.	LONG.	NORTH*	EAST*	DIAMONDS
9	Bucke	Bucke	47.47855	79.71725	5258925	596650	Yes
10	Buzz #1	Guibord	48.46321	80.19516	5367880	559500	No
11	Buzz #2	Guibord	48.46609	80.19579	5368200	559450	Yes
12	Buzz #3	Guibord	48.46624	80.18456	5368225	560280	No
13	C-14	Clifford	48.28182	79.80105	5348100	588950	Yes
14	Diamond Lake 1 (North)	McVittie	48.12033	79.75913	5330200	592350	Yes
15	Diamond Lake 2 (South)	McVittie	48.11649	79.75788	5329775	592450	No
16	Glinkers	Firstbrook	47.468216	79.792473	5257686	591000	No
17	Gravel	Bucke	47.47415	79.70608	5258450	597500	Yes
18	Guibord	Guibord	48.48354	80.18266	5370149	560399	No
19	Guigues	Guigues (Quebec)	47.57212	79.36690	5269818	622828	Yes
20	McLean	Bucke	47.489807	79.758553	5260125	593518	No
21	Michaud**	Michaud	48.48129	80.09257	5369975	567060	No
22	Morrisette Creek	Morrisette	48.208523	79.916840	5339825	580475	No
23	NDN No.1	Nedelec (Quebec)	47.64545	79.51079	5277751	611850	Yes
24	NDN No.2	Nedelec (Quebec)	47.64732	79.51606	5277950	611450	No
25	OPAP	Bucke	47.459267	79.742928	5256750	594588	No
26	Peddie	Bucke	47.442474	79.681656	5254960	599400	No
27	Seed	Firstbrook	47.455021	79.766113	5256250	593010	No
28	Tandem-1	Guibord	48.472088	80.216797	5368850	557890	Yes (Ruby)
29	Upper Canada**	Gauthier	48.140594	79.82280	5332378	587577	No

* UTM NAD 27 Zone 17
** kimberlite dikes

Note: MR-6 (Sudbury Contact Mines Limited) and Triple B (Geological Survey of Canada) kimberlite discoveries are not shown due to insufficient information.
The following kimberlite dikes, for which there is insufficient data, are not included in the above table: Buffonta pit in Garrison Township, intersection in diamond drill hole (2001) by Jonpol Explorations Limited in Garrison Township and intersection in diamond drill hole by Sudbury Contact Mines Limited in Gauthier Township.



LEGEND

- Producing Mines
  1. Barrick Gold Corporation - Holt-McDermott Mine
  2. Newmont Mining Corporation and Teddy Bear Valley Mines Limited - Holloway Mine
  3. Exall Resources Limited and Glimmer Resources Inc. - Glimmer Mine
  4. Extender Minerals of Canada Ltd. - North Williams Township
  5. Extender Minerals of Canada Ltd. - Yarrow Mine
- Quarries
  1. Miller Minerals - Bucke Quarry
- Mills
  1. Kinross Gold Corporation
  2. SMC (Canada) Ltd.
  3. Canmine Resources Corporation

Figure 1. Mining and milling in the Kirkland Lake District -- 2001.

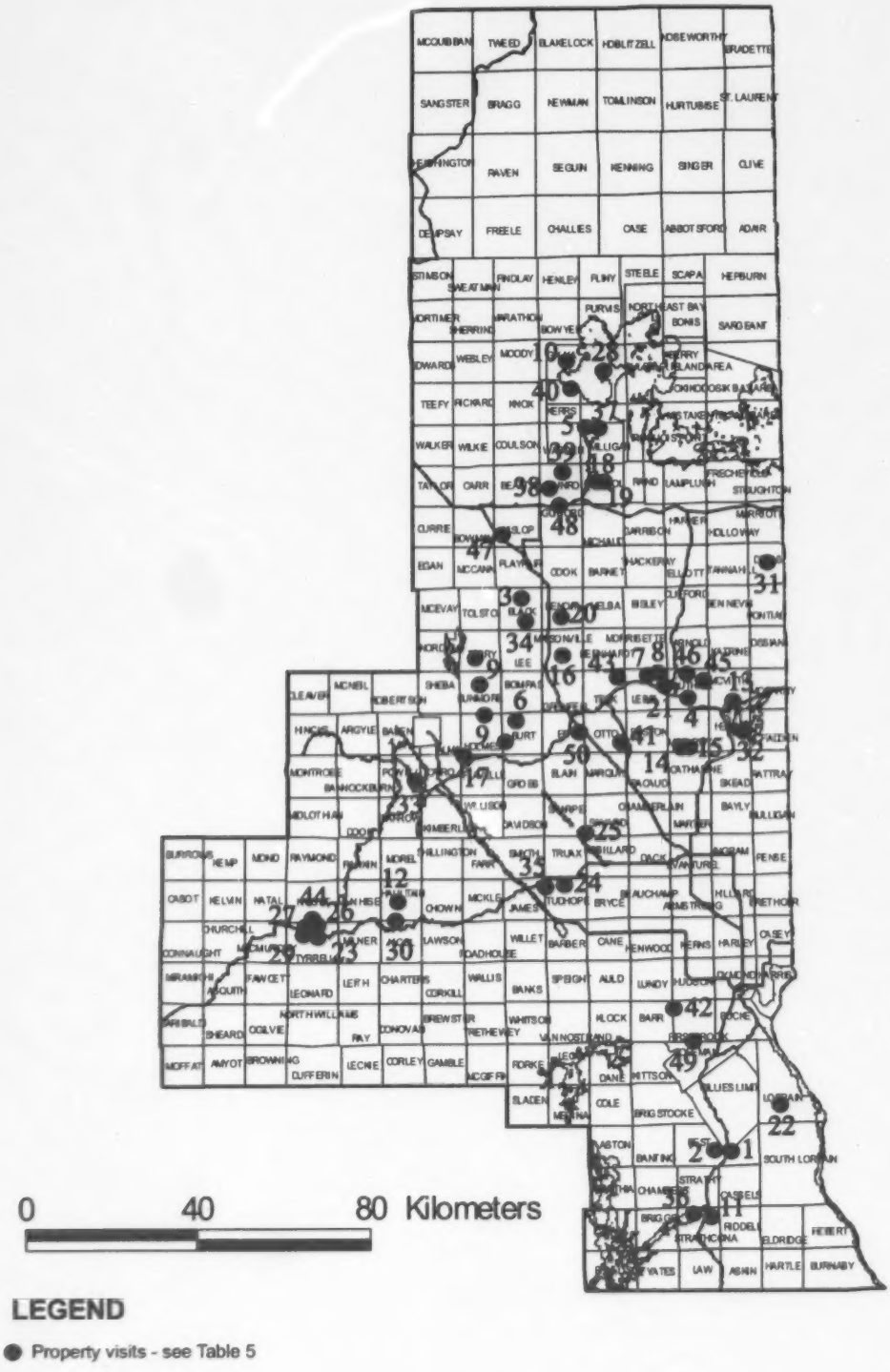


Figure 2. Property visits in the Kirkland Lake District – 2001 (see Table 5).

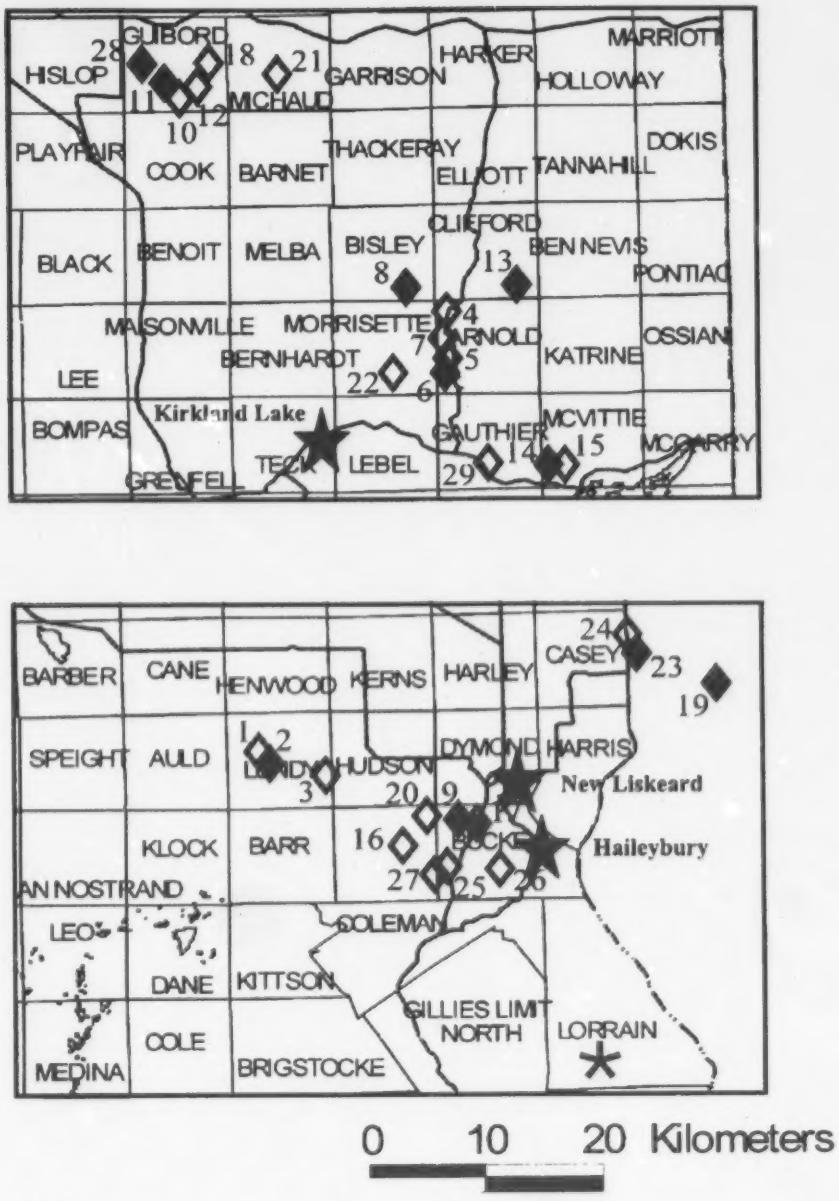


Figure 3. Kimberlite occurrences in the Kirkland Lake District (see Table 10).

Ontario

Ontario Geological Survey
Regional Resident Geologist Program

Kirkland Lake Regional Resident Geologist (Sudbury District)–2001

by

M. Cosec, J.M. Stewart and G. Meyer

2002

CONTENTS

Kirkland Lake Regional Resident Geologist (Sudbury District)–2001

INTRODUCTION 1
MINING ACTIVITY 9
Gold and Base Metals Production 10
Falconbridge Limited 10
Inco Limited 11
Industrial Minerals Production 11
Agricultural Mineral Prospectors Incorporated (Burns Mine) 12
Inco Limited 12
Lafarge Canada Incorporated 14
Unimin Canada Limited 14
ADVANCED EXPLORATION 14
Falconbridge Limited 14
Inco Limited 14
Quartec Mineral Developments Incorporated 15
EXPLORATION ACTIVITY 15
Aquiline Resources Incorporated 19
Aurora Platinum Corporation 19
Crowflight Minerals Incorporated 20
Falconbridge Limited 20
Flag Resources (1985) Limited 21
Freewest Resources Canada Incorporated and Sparton Resources Incorporated – Folson Lake PGM-Cu-Ni Property 22
MacDonald Mines Exploration Limited – East Lobe Claims in the East Bull Lake Intrusive Complex 22
MacDonald Mines Exploration Limited, Falconbridge Limited and Impala Platinum Limited – Casson Lake Property 22
Mustang Minerals Corp. and Falconbridge Limited – East Bull Lake PGM Property 22
Mustang Minerals Corp. and Impala Platinum Holdings Limited (Implats) – River Valley PGM Property 23
Mustang Minerals Corp. – Truman Platinum Group Metals Property 24
Pacific North West Capital Corp. (PFN) and Anglo American Platinum Corporation Limited (Anglo Platinum) – River Valley Project 24
Pacific North West Capital Corp. (PFN) New Millenium Metals Corporation and Anglo American Platinum Corporation Limited (Anglo Platinum) – Agnew Lake Project 24
Ursa Major Minerals Incorporated 25
Wallbridge Mining Company Limited 25
RESIDENT GEOLOGIST STAFF AND ACTIVITIES 26
RECOMMENDATIONS FOR EXPLORATION 27
Platinum Group Elements in the "Nipissing – Huronian Magmatic Belt" 27
Sudbury Igneous Complex – Offset Dike Structures (Ni-Cu-PGE) 27
ACKNOWLEDGEMENTS 28
REFERENCES 28

TABLES

1. Sumary of claims recorded and assessment work credits in the Sudbury Mining Division in 2001 1
2. Assessment files received in the Sudbury Resident Geologist District in 2001 2
3. Industrial mineral and dimension stone producers in the Sudbury Resident Geologist District (2001)..... 12
4. Platinum group element exploration activity in the Sudbury Resident Geologist District (2000-2001)..... 15

FIGURES

1. Gold and base metal mines in operation in the Sudbury District in 2001 9
2. Industrial mineral and dimension stone producers in the Sudbury Resident Geologist District (2001)..... 13
3. Platinum group element exploration activity in the Sudbury Resident Geologist District (2000-2001)..... 18

Kirkland Lake Regional Resident Geologist (Sudbury District)–2001

M. Cosec[1], J.M. Stewart[2] and G. Meyer[3]

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INTRODUCTION

The Sudbury District Geologist office of the Resident Geologist Program includes the judicial districts of Sudbury, Manitoulin, Parry Sound, and Muskoka, and parts of Nipissing and the County of Renfrew. It encompasses approximately 45 000 square km and over 340 townships.

The production of nickel, copper, and related by-products by Falconbridge Limited and Inco Limited dominate mining activities in the Sudbury District. Overall metal production was up from the previous year, owing to settlement of a labour dispute at Falconbridge Limited.

At the end of 2001, a total of 8501 mining claim units had been recorded and 3531 mining claim units cancelled in the Sudbury Mining Division. Active claim units increased by 22% to 27 444 in 2001 (Table 1). This represents the greatest number of mining claims under exploration in the Sudbury Mining Division in recent history.

Table 1. Summary of claims recorded and assessment work credits in the Sudbury Mining Division in 2001.

Year	Claims Units Recorded	Claim Units Cancelled	Claims Units Active	Diamond Drilling ($)	Physical Work ($)	Geotechnical* Work ($)	Total ($)
2001	8501	3531	27444	NA	NA	NA	4 326 222
2000	10 693	3 313	22 433	NA	NA	NA	4 441 042
1999	3 094	2 469	15 215	NA	NA	NA	2 241 392
1998	2 445	3 815	13 056	NA	NA	NA	2 182 037
1997	3 411	2 648	11 257	NA	NA	NA	2 235 293
1996	2 512	1 548	7 934	398 135	279 359	200 631	878 125
1995	3 511	3 027	6 738	343 645	341 063	449 847	1 134 555

** As of 1992, Geological and Geophysical Survey data are combined as Geotechnical Work.*
NA - data not available.

Exploration expenditures in terms of assessment work submitted were $4 326 222 in 2001, a modest 2.5% decrease over the previous year. This amount only represents assessment work submitted as of December 31, 2001, and the actual amount of exploration expenditures is higher. (See Table 2 for list of assessment files received in the Sudbury District in 2001.) It also does not include exploration work conducted on patented or leased mining claims.

Table 2. Assessment files received in the Sudbury Resident Geologist District in 2001.

Abbreviations

AEM ..... Airborne electromagnetic survey
AM ..... Airborne magnetic survey
ARA ..... Airborne radiometric survey
Beep ..... Beep Mat survey
Bulk ..... Bulk sampling
DD ..... Diamond drilling
DDH ..... Diamond drill hole(s)
DGP ..... Down-hole geophysics
GC ..... Geochemical survey
GEM ..... Ground electromagnetic survey
GL ..... Geological Survey
GM ..... Ground magnetic survey
GRA ..... Ground radiometric survey
Grav ..... Gravity survey
HLEM ..... Horizontal loop electromagnetic survey
HM ..... Heavy mineral sampling
IM ..... Industrial mineral testing and marketing
IP ..... Induced polarization survey
Lc ..... Linecutting
Met ..... Metallurgical testing
OD ..... Overburden drilling
ODH ..... Overburden drill hole(s)
PEM ..... Pulse electromagnetic survey
PGM ..... Platinum group metals
Pr ..... Prospecting
RES ..... Resistivity survey
Samp ..... Sampling (other than bulk)
Seismic ..... Seismic survey
SP ..... Self-potential survey
Str ..... Stripping
Tr ..... Trenching
UG ..... Underground exploration/development
VLEM ..... Vertical loop electromagnetic survey
VLFEM ..... Very low frequency electromagnetic survey

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
McWilliams Township	Quantec Gescience	2001	GM	2.22108	SP004
Stralak Township	Leclair, A.	2001	Phys	2.21993	SP004
Loughrin Township	Quantec Geoscience	2001	GM	2.22162	SP010
Baldwin Township	Barry, A., Barry, S. and William Gies	2001	Phys	2.21906	SP017
Salter Township	DRH Geological Consulting	2001	Mapping, Sampl	2.21994	SP027
Loughrin Township	Vision Exploration	2001	GM	2.21900	SP009
Neelon and Dryden Townships	Fudge & Associates	2001	IM	2.21619	SP008
Roosevelt Township	Lordan Exploration Services	2001	Lc	2.21411	SP012
Sheppard Twonship	Wallbridge Mining Company	2001	DD	2.21447	SP009
Stewart Township	Lashbrook, R.	2001	Str, Mapping	2.21527	SP004

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Kelly Township	JVX Ltd.	2001	GM	2.21668	SP018
Henry Township	Quantec Geoscience Inc.	2001	GM	2.21862	SP013
Dana and McWilliams Townships	Vision Exploration	2001	GM	2.21860	SP017
Boon Township	Dan Patrie Exploration Ltd.	2001	GM	2.21852	SP021
Henry and Crerar Townships	Patrie, D., Patrie, B., Andress, A. and Pigeon, B.	2001	GM	2.21858	SP012
Dana Township	Jobin-Bevans, S., Wetherup, S., Lyon, D. and Clegg, B.	2001	GL, Mapping, Sampl	2.21838	SP012
Baldwin Township	Barry, S., Miller, G., Gies, W., Barry, A. and Barry, R.	2001	Tr, Sampl	2.21285	SP016
Wisner Township	Eastern Geophysics Limited	2001	GM	2.20817	SP019
Janes Township	International Freegold Mineral Development Inc.& L. Gervais	2001	Mapping, Sampl	2.20817	SP022
Cascaden and Cartier Townships	Wallbridge Mining Company	2001	Mapping, Sampl	2.21351	SP004
Capreol Township	Wallbridge Mining Company	2001	DD	2.21072	SP004
Hess Township	Sears, S.	2001	Lc, GM	2.21629	SP025
Dryden Township	Hall, M.	2001	Mapping, Sampl	2.21691	SP004
May Township	Hall, M.	2001	Mapping	2.21647	SP003
Rathburn Township	Giblin, P.	2001	DD	2.21472	SP049
Garson Township	Hunter, D. and Ingram, R.	2001	GC, Mapping	2.21685	SP003
Nairn Township	Barry, A., Barry R. and Barry S.	2001	Beep	2.21767	SP001
MacLennan Township	Fielding, R. and Fielding, T	2001	Mapping, Sampl	2.21707	SP022
Davis Township	Patrie, D.	2001	GM, IP	2.21553	SP064
Salter Township	Hall, M.	2001	Pr, GM	2.21491	SP0026
Lorne Township	INCO Ltd.	2001	GL, Pr, Sampl	2.21503	SP007
Secord Township	Secord Silica Corp.	2001	GL, Sampl	2.21492	SP009

SUDBURY DISTRICT – 2001

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Rathburn Township	Gereghty, G. and Charron, R.	2001	DD	2.20971	SP048
Kelly Township	JVX Ltd.	2001	IP	2.20986	SP017
Rathburn Township	Lamontagne Geophysics	2000	GM	2.21436	SP047
Venturi and Tofflemire Townships	Agricultural Mineral Prospecting	2000	GL, Str, Tr	2.21444	SP003
Boon Township	Falconbridge Ltd.	2000	DD	2.21384	SP020
Ermatinger and Cascaden Townships	Wallbridge Mining Corp.	2001	AMT Survey	2.21634	SP009
Salter Township	Hawke, D.	2000	GL	2.21310	SP025
Scadding and Davis Townships	Solitaire Minerals Corp. and Loney, M.	2000	GM, VLFEM	2.21045	SP050
Hess Township	Sears, S.	2001	DD	2.21473	SP024
Foster Township	Naples, K.	2000	Pr	2.21364	SP017
Salter Township	Collins, W.	2001	Tr, GM	2.21313	SP0024
Grant and Field Townships	Transpacific Resources Inc.	1999	GC	2.20992	SP0012
Dieppe and Truman Townships	Jobin Bevans, S.	2000	IP, Pr, Str	2.21069	SP015
McConkey Township	Racicot, F. and Hanych, W.	1999	Pr	2.21022	SP018
Porter Township	Brunne, D. and Turcott, M.	2000	Tr, GC, GL, Pr	2.21043	SP009
Street Township	International Freegold Mineral Exploration	2000	GL, GC	2.20897	SP021
Dana and Pardo Townships	JVX Ltd.	2001	GM, IP	2.20979	SP015
Drury Township	INCO Ltd.	2000	DD	2.21004	SP007
Flett Township	Opara, M.	2001	GM, IP	2.20962	SP007
Wisner Township	Barry, G., Barry, M., Barry, L. and Barry, C.	2000	Str, Tr	2.20989	SP018
Flett and Dunlop Townships	JVX Ltd.	2000	GM IP	2.20962	SP007
Norman Township	Barry, L., Barry, G. and Barry C.	2000	Tr, Str	2.20990	SP034

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Hess Township	Beilhartz, D.	2000	Mapping, Pr	2.20901	SP023
Henry and Jane Townships	Ironbank International Ltd.	2001	GM, Lc	2.20927	SP011
Waters Township	Fielding, R. and Fielding, T.	1999	Pr, Sampl	2.21044	SP013
Dana Township	Ironbank International Ltd.	2001	Lc, Sampl, Pr, GC	2.20873	SP014
Mattawan Township	Shouinard, G.	2000	Pr	2.21005	SP022
Foster Township	Salo, G. and McLean, A.	2000	GC, Pr	2.21068	SP016
Monestime and Foucault Townships	Ardiel, M., Obst, G. and Henkelman, K.	1999	Lc	2.20882	SP001
Marquette Township	Leclair, A. and Leclair, R.	2000	GC, Str	2.21061	SP004
Neelon Township	Fudge & Associates	2001	GM	2.20963	SP007
Street Township	Racicot, F. and Tchajkov, I.	2001	Sampl	2.20842	SP020
Ermatinger and Hart Townships	Sears, S.	2000	DD, GC	2.20874	SP008
Waters Township	Farrow, K., Dunlop, S., Fielding, T. and Fielding, R.	2000	Pr, Sampl	2.21070	SP012
Denison Township	Cons Venturex Holdings Ltd.	2000	Beep, Pr, [illegible] Sampl	2.20891	SP002
Secord Township	Rintala Construction	2000	Str	2.20902	SP002
Shakespeare Township	Turcott, M.	2000	GL, GC	2.20847	SP008
Tyrone and Leinster Townships	Beilhartz, D. and Tracenelli, H.	2000	Pr, Sampl, GC	2.20890	SP003
Casimir Township	Kresz, D.	1999	GL	OP99-189	SP004
MacLennan Township	Stringer, E.	1999	Pr, Sampl, DD	OP99-270	SP021
McConkey Township	Hanych, W.	1999	Pr, Sampl, GL	OP99-402	SP015
Hess and Munster Townships	Michon, R.	1999	Sampl, Pr	OP99-123	SP022
Struthers Township	Dufresne, R. and Black Crystal Mining	1999	GL, Str	OP99-200	SP003
Kelly and Davis Townships	Jobin-Bevans, S.	1999	GL, Pr	2.20776	SP014

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Scadding Township	Jobin-Bevans, S.	1999	Gl, Pr	2.20784	SP048
De Morest Township	Brady, J.	2000	Str, Tr	2.20711	SP003
Ermatinger Township	Sears, S.	2000	DD, GC	2.20735	SP006
Lount Township	Bain, R.	2000	Str	2.20750	SP032
Ermatinger Township	Sears, S.	2000	DD, GC	2.20747	SP007
Kelly and Davis Townships	Jobin-Bevans, S.	1999	DD	2.0771	SP015
Kelly and Davis Townships	Jobin-Bevans, S.	2000	DD	2.20770	SP016
Janes Township	Jobin-Bevans, S.	1999, 2000	GL, Pr	2.20783	SP021
Dana Township	Jobin-Bevans, S.	2000	DD	2.21046	SP013
Shibananing and Dunlop Townships	Jobin-Bevans, S.	2000	IP, GM	2.20953	SP007
Kelly Township	Bevans, L. and Lyon, D.	2001	Gl, Pr, Gc	2.20668	SP013
McNish Township	Bassanese, P. and Mead, C.	1999	Pr, Str	2.20681	SP012
Macbeth Township	Anderson, S.	2000	GM, VLFEM, GC	2.20704	SP012
Ryerson Township	McCarty, J.	2000	Pr	2.20804	SP012
Dana and Crerar Townships	Walter, M.	2000	IP, GM	2.20799	SP046
Rathburn Township	McLeod, M.	2000	DD	2.20950	SP046
Henry and Crerar Townships	Lapierre, K.	2000	Lc, GM	2.20752	SP010
Boon Township	Walter, M.	2000	DD	2.20752	SP019
Norman Township	Barry, A., Barry, R., Barry, S. Barry, H. and Rogerson, K.	2000	Str, Tr	2.20734	SP032
Hess and Hardy Township	Sears, S.	2000	DD	2.20951	SP021
Janes Township	Barr, H.	2000	GC, GL	2.20774	SP020
Loughrin and Davis Townships	Barr, H.	2000	GC, GL	2.20740	SP008
Street Township	Jobin-Bevans, S.	2000	GC, Pr, VLFEM, GM	2.20850	SP019
Loughrin Township	Martin, W.	2000	Pr	2.20773	SP007

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Marquette Township	Leblanc, A. and Morrison, D.	2000	GC	2.20810	SP003
Gough Township	New Millenium, Hawke, D., and Campbell, G.	2000	Str	2.20789	SP007
Truman Township	Salo, G.	2001	Pr, Sampl	2.20945	SP012
Shakespeare and Gough Townships	Hall, M.	2000	GL	2.20667	SP007
McWilliams and Dana Township	Mustang Minerals Corp.	2000	GL, GC	2.20876	SP003
Attlee and Kilpatrick Townships	O'Shaugnessy, J. and Paterson, M.	1999	GM, IP, VLFEM, DD, GC	2.20861	SP002
Strong Township	Miller Paving Inc.	2000	GL, GC	2.20673	SP001
Bowell Township	Wallbridge Mining Company	2000-2001	GC	2.20816	SP006
Cascaden and Trill Townships	Wallbridge Mining Company	2001	DD	2.20858	SP003
Butler and French Townships	Kealy, G.	2000	Lc	2.20833	SP016
Rathburn Township	Fielding, R.	2000	Pr, GC	2.20860	SP043
Scadding and Rathburn Townships	Fielding, R.	2000	Tr, Beep	2.20628	SP044
Afton Township	Ferreira, W.	2000	DD	2.20785	SP014
Scholes Township	Temex Resources Ltd.	2000	DD	2.20807	SP009
Henry and Loughrin Townships	Platinum Group Metals Co. Ltd.	2000	GL, GC	2.21858	SP012
Morgan Township	Wallbridge Mining Co. Ltd.	2000	AEM	2.20794	SP003
Scadding Township	Solitaire Minerals and Loney, T.	2000	GL, GC	2.20618	SP043
Lount Township	Vandevalk, H.	2000	GM, VLFEM, Pr, Str	2.20601	SP030
Goschen Township	Manex Granite	2000	Str	2.20541	SP003
Ermatinger Township	Champion Bear Resources	2000	DD	2.20781	SP005
Parkin Township	Boulard, V.	2000	Str, TR	2.20558	SP065
Ermatinger Township	Champion Bear Resources	2000	DD	2.20781	SP005
Afton Township	Ferreira, W.	2000	Pr	2.20786	SP013
Drury Township	Wallbridge Mining Company	2000	Lc, GM	2.21629	SP006

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Gerow Township	Mustang Minerals Corp.	2000	GM	2.20814	SP0013
Boon Township	Mustang Minerals Corp.	2000	GM	2.20763	SP018
Boon Township	Mustang Minerals Corp.	2000	GM	2.20674	SP017
Botha Township	Chavarie, D.	2000	Str	2.20556	SP008
Bigwood Township	Allstone Quarry Products	1999	Str	2.20522	SP005
Spence Township	Consolidated Canadian Faraday	1973	DD, GL	Donation	SP003
Lount and Croft Townships	Burcal Mines Ltd.	1973	DD	Donation	SP033
Cowper and Foley Townships	Hudson Bay Mining & Smelting Co.	1969	GM	Donation	SP006
Tennyson and Cadeau Townships	Warren Industrial Feldspar Inc.	1986-1988	GL, GC	Donation	SP003
Secord Township	Warren Industrial Feldspar Inc.	1981	GL, GC	Donation	SP008
Henry Township	Warren Industrial Feldspar Inc.	1985	GL, GC, Bulk	Created from Misc. company files	SP009
Brown and Wilson Townships	Scevchenko, G., Lapierre, K.and Sawyer, N.	1979	GL	Donation	SP001

The year 2001 continued to be another banner year for exploration in the Sudbury District. Exploration activity by junior mineral exploration companies and individuals for platinum group elements (PGE) remained strong despite the levelling-off of record prices experienced toward the end of 1998.

Junior mineral exploration companies also focussed on the Sudbury Igneous Complex (SIC), predominantly on offset dikes or small past producing operations and relatively unexplored ground north of the SIC.

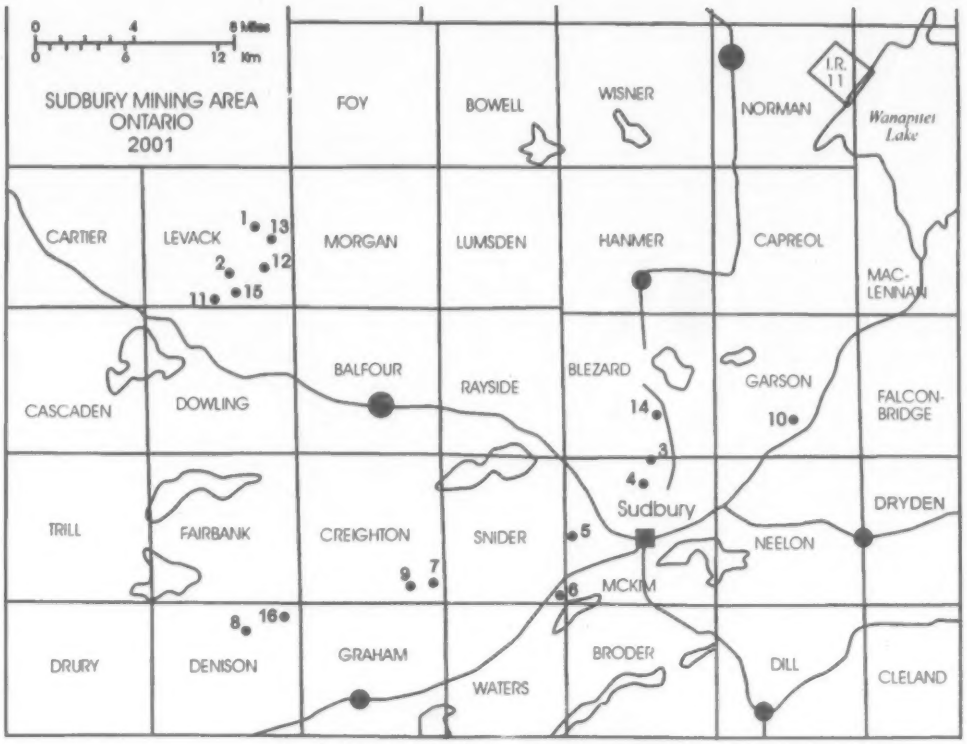
Exploration for diamonds continued in the Marten River-Tilden Lake area.

The end of the year witnessed a number of mergers, acquisitions, and joint venture agreements among several companies with exploration holdings in the Sudbury District.

The year 2001 also marks the 250th anniversary of the discovery of nickel by Axel Fredrik Cronstedt in Sweden in 1751. The metal was named for one of the demons German miners of that day faced. The demon that spoiled the extraction of copper from its ores is now a highly appreciated metal because of its extraordinary properties (Habashi 2001).

MINING ACTIVITY

Falconbridge Limited and Inco Limited operated 16 underground mines in the Sudbury District in 2001 (see Figure 1 for locations).



• Producing Mines (Ni, Cu, Precious metals)

Inco Limited		*Falconbridge Limited*	
1 Lower Coleman	7 Creighton	11 Onaping	14 Thayer Lindsley
2 McCreedy East	8 Crean Hill	12 Fraser*	15 Craig
3 Stobie	9 Gertrude	13 Strathcona*	16 Lockerby
4 Frood	10 Garson		
5 Copper Cliff North			
6 Copper Cliff South			

*Note: Strathcona operations have merged with Fraser.

Figure 1. Gold and base metal mines in operation in the Sudbury District in 2001.

Gold and Base Metals Production

FALCONBRIDGE LIMITED

Falconbridge Limited has been mining nickel, copper, cobalt, and precious metals from the Sudbury Igneous Complex since 1928. Its operations include the Craig and Fraser mines in Levack Township, the Lockerby Mine in Denison Township, and the Thayer Lindsley Mine in Blezard Township.

Due to a rock burst at the Strathcona Mine – Deep Copper Zone in 2000, operations at both Strathcona and Fraser mines have been consolidated. Main operations are conducted from the Fraser Mine plant, while the hoisting of copper ore continues through the Strathcona No. 1 shaft. The mines are now referred to as Fraser Main, Fraser Nickel, and Fraser Copper (the latter two being the former Strathcona Mine).

In 2001, the Craig Mine produced approximately 45% of the company's Sudbury ore output.

All ore is concentrated at the Strathcona Mill, with a rated capacity of approximately 3 million tonnes per year. The nickel-copper concentrate is trucked to the company's smelter in the town of Falconbridge while the copper concentrate is shipped to the Kidd Metallurgical Division mineral processing facility in Timmins for further smelting and refining.

Production rates in 2001 at the Falconbridge Limited smelter were 25 320 tonnes Ni concentrate, 22 860 tonnes Cu concentrate, and 630 tonnes Co concentrate. The smelter also processes ore from Falconbridge operations in Raglan, Quebec, as well as custom feed materials. It has the capacity to produce approximately 130 000 tonnes of nickel matte per year, which is shipped by rail to Quebec City and then by sea to the Nikkelverk refinery in Kristiansand, Norway, for further processing. Due to lack of feed, the smelter will be shut down for 8 to 9 weeks in July and August in 2002. No jobs will be affected.

Roaster gas from the smelter operation is treated in an adjacent plant to produce sulphuric acid, thereby reducing sulphur dioxide emissions to the atmosphere. The acid plant has the capacity to produce approximately 300 000 tonnes of sulphuric acid per year.

Reserves are rated as:

Proven:	9.91 million tonnes @ 1.51% Ni, 1.28% Cu;
Probable:	7.11 million tonnes @ 1.30% Ni, 1.32% Cu.

Resources are rated as:

Measured:	164 000 tonnes @ 1.63% Ni, 0.90% Cu;
Indicated:	16.13 million tonnes @ 2.47% Ni, 1.16% Cu;
Inferred:	15.30 million tonnes @ 1.80% Ni, 2.04% Cu.

The company reported consolidated earnings of $16.0 million for 2001, compared with earnings of $368.3 million for 2000.

Noranda Incorporated owns approximately 54.9% of the company.

(Source: Falconbridge Limited press release, January 30, 2002.)

INCO LIMITED

Inco Limited reported net earnings of US$93 million in 2001 compared with US$347 million the previous year. The company's average realized price for nickel in 2000 was US$2.93 per pound, compared to US$4.09 per pound for 2000, a 31% decrease.

Production figures from the Inco Limited Ontario Division were unavailable at the time of writing.

The company operated 10 mines, 2 mills, 1 smelter, 4 refineries, 3 sulphuric acid plants, 1 liquid sulphur dioxide plant and 1 oxygen plant, producing 10 commodities.

Inco's oldest operating mine, Creighton Mine, celebrated a century of continuous operation in 2001. Discovered in 1856, its first ore shipment was in 1901.

The life of the mine has been extended with the Creighton Deep project. When fully on stream, annual production is expected to be 10 900 tonnes of nickel, 9500 tonnes of copper, and 28 000 ounces of platinum group metals.

The first phase of the project, from 2001 to 2013 involves mine development between the 7400-foot and 7660-foot levels. In the second phase, development will extend to the 8180-foot level between 2005 and 2019 (Inco Limited press release, May 28, 2001).

Located about 50 kilometres west of Sudbury, McCreedy East is one of Inco's most productive mines with ore handling and materials transportation accessible by existing infrastructure at Inco's nearby Coleman Mine.

The McCreedy East expansion project calls for development of the Main and West ore bodies. The expansion will provide Inco's Sudbury operations with an additional source of low-cost production for at least another 15 years. Further extensions are likely because McCreedy East has other mineralized zones with excellent potential.

The expansion project is expected to increase production at McCreedy East to 4350 tonnes of ore per day from the current 2700 tonnes by late 2004. At this rate, the mine will produce 22 million kg of nickel and 42 million kg of copper annually, up from the current 13 million kg of nickel and 37 million kg of copper (Inco Limited press release, November 28, 2001).

All ore from the Ontario Division is milled at the Clarabelle Mill, which has a rated capacity of 45 000 tons per day. The ore is upgraded from 1.2% Ni and 1.2% Cu to a combined total of 7% nickel-copper concentrate. The Copper Cliff mill provides flotation facilities used to separate bulk nickel-copper concentrate produced by the Clarabelle mill and upgrades it to 20% combined Ni+Cu. A precious metal refinery is located in Port Colborne, Ontario.

The company announced plans in September 2001 to spend C$100 million to achieve a 34% reduction in sulphur dioxide emissions from its Sudbury smelting operations. This is part of a program to comply with a control order issued by the Ontario Ministry of the Environment.

Industrial Minerals Production

Several industrial mineral commodities were produced in the district in 2001 (see Table 3 and Figure 2). These include dolostone, silica, trap rock, flagstone, and sundry varieties of coloured landscaping aggregates. Numerous companies throughout the Sudbury District extracted considerable amounts of sand and gravel for various purposes.

Table 3. Industrial mineral and dimension stone producers in the Sudbury Resident Geologist District (2001) (keyed to Figure 2).

No	Township/Area	Company/Individual	Commodity
1	Badgeley Island	Unimin Canada Ltd.	Silica
2	Bigwood Township	Allstone Quarry Products Inc.	Flagstone (Gneiss), Lansdcaping Stone
3	Curtin Township	INCO Ltd.	Silica
4	Dana Township	Upper Canada Stone Company Ltd.	Decorative Crushed Stone (Anorthosite)
5	Dawson Township	Lafarge Canada Inc.	Aggregate (Limestone)
6	Gordon Township	Canadian Colour Rock Inc.	Flagstone (Limestone), Landscaping Stone
7	McAuslan Township	Mc Laren's Bay Mica Stone Quarries	Flagstone (Gneiss)
8	McDougall Township	Mill Lake Stone Quarry Ltd.	Flagstone (Gneiss)
9	Ratter Township	Crea-Mac Contracting Company Ltd.	Decorative Crushed Stone (Granite)
10	Venturi Township	Agricultural Mineral Prospectors	Organic Fertilizer

AGRICULTURAL MINERAL PROSPECTORS INCORPORATED (BURNS MINE)

This company, based out of Erin, Ontario, removed 6500 tonnes of material from the Spanish River Carbonatite Complex in Venturi Township.

Agricultural Mineral Prospectors Incorporated purchased 4 leased and patented claims from I. Burns, Prospector (Sudbury) in 1996. Subsequently, additional ground was added around the complex. Holdings now total 40 claim units.

The material, with a composition primarily of calcite, vermiculite and apatite, was applied to over 10 000 acres as a soil conditioner in southwestern Ontario, Ohio, and Michigan.

A treatise on the geology of Burns Mine can be found at the company's Internet web site at www.rockpowder.com.

INCO LIMITED

Inco Limited continued quarrying silica at its Lawson Quarry in Curtin Township to supply flux to its Copper Cliff smelter. The material is a high-purity quartz arenite from the Lorrain Formation, part of the Paleoproterozoic Huronian Supergroup.

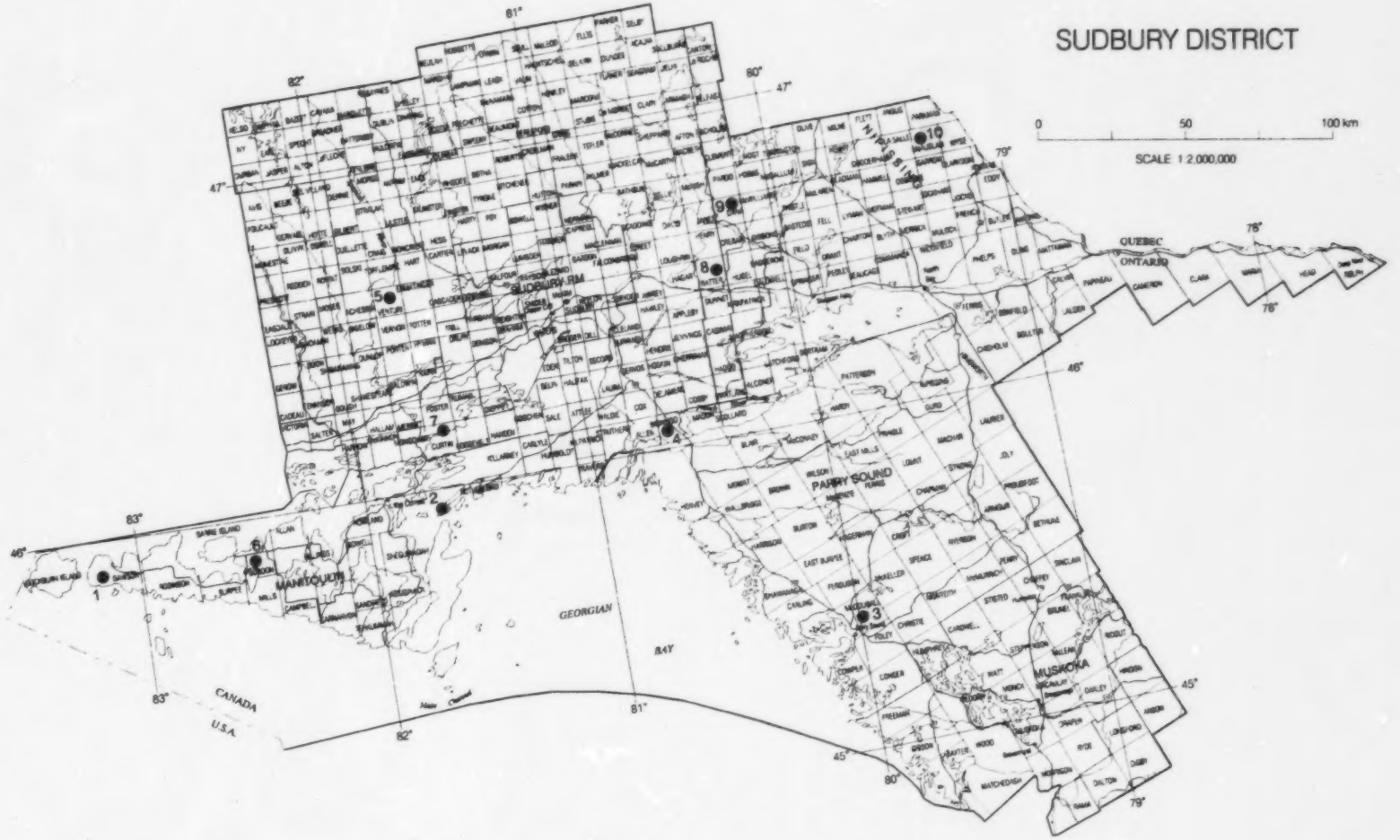


Figure 2. Industrial mineral and dimension stone producers in the Sudbury Resident Geologist District in 2001 (keyed to Table 3).

LAFARGE CANADA INCORPORATED

Lafarge Canada Incorporated quarried approximately 5 million tons of dolostone from its Meldrum Bay quarry on Manitoulin Island. Massive dolostones of the Paleozoic Amabel Formation are excavated in a single lift of approximately 50 feet. The material is classified as 70% construction aggregate and 30% metallurgical grade flux and filler.

UNIMIN CANADA LIMITED

Unimin Canada Limited produced approximately 450 000 tons of high-grade silica from the Bar River Formation of the Paleoproterozoic Huronian Supergroup on Badgely Island. The coarse silica is shipped to Midland, Ontario and Ashtabula, Ohio, for further processing.

ADVANCED EXPLORATION

Falconbridge Limited

Falconbridge Limited spent approximately $7.5 million on exploration projects in the Sudbury area in 2001.

Advanced exploration programs were conducted primarily in the Onaping Depth Zone at the Onaping Mine in Levack Township, and the Nickel Rim South (Airport) property in McLennan Township.

At the Nickel Rim South property, significant nickel, copper, and PGE mineralization was discovered on the main contact of the Sudbury Igneous Complex and in the underlying footwall rocks. It is located approximately 2 km southeast of the company's Nickel Rim deposit that consists of an inferred resource 1.6 million t of 1.6% Ni, 10.1% Cu, 4.2 g/t Pt, 3.5 g/t Pd, and 2.5 g/t Au. (Refer to the "Exploration Activity" section for more detail.)

Inco Limited

In 2001 Inco Limited announced new high-grade ore discoveries at several of their exploration and mining properties in the Sudbury area. The company discovered new PGE deposits at its Copper Cliff North Mine, calculated more PGE resources at its Totten deposit, and identified very high-grade copper, nickel, and PGE mineralization at the McCreedy East Mine.

At the Copper Cliff North Mine two discoveries were made: (i) an extension of the 138 orebody, which has exceptionally high-grade PGE, was discovered. The deposit is located 400 m north of the mineshaft and was brought into production in the last quarter of 2000. It contains a proven reserve of 300 000 t grading 16.4 g/t of combined PGE+Au, 0.9% Ni, and 4.5% Cu. Exploration continues since the deposit is still open at depth; (ii) Pump Lake is a new deposit, consisting of three zones, that is situated about 2500 m north of the Copper Cliff North Mine shaft, and appears to have excellent potential. Exploration drilling to date has outlined a total indicated resource of 3.5 million t of 1.4% Ni, 1.0% Cu, and 1.5 g/t combined PGE+Au. Included in this total is the East Flank Zone which contains 230 000 t of 1.5% Cu, 3.2% Ni, and 5.9 g/t PGE+Au. Further drilling is expected to increase this resource.

Exploration at the high-grade Totten deposit, discovered in October 1999, has increased the total indicated and inferred resource tonnage by about 20% and at a slightly higher grade. The deposit as delineated contains 10.1 million t of 1.50% Ni, 1.97% Cu, and 4.8 g/t of PGE, including 1.4 million t of inferred resource at 1.4% Ni, 2.0% Cu, and 7.1 g/t PGE. Significant additions to this resource are expected, as exploration drilling and geophysical surveys indicate that the limit of the orebody has yet to be determined. Additional definition drilling is ongoing and a feasibility study is underway to bring the orebody into production.

Inco Limited geologists also report the discovery of narrow veins of very high-grade platinum group mineralization at the McCreedy East Mine. This newly discovered mineralization is believed to be a faulted extension of the McCreedy East 153 orebody, which has similar high-grade PGE. The zone has been intersected in nine holes over a

strike length of 600 m and down dip for 300 m. Further exploration is needed to establish continuity of the mineralization and estimate a mineral resource (Inco Limited, News Release, January 18, 2001 and http://www.incoltd.com).

Quartec Mineral Developments Incorporated

Quartec Mineral Developments Incorporated, a Sudbury-based company, conducted exploration and research activities to evaluate the economic viability of producing high purity process quartz products, primarily from vein quartz in the Sudbury District. These products are used in timing devices, electronics, and telecommunications systems.

Quartec also investigated the recovery of feldspar from local sources for use as industrial fillers and extenders.

The company owns a sample preparation facility in Sudbury and also uses the research facilities at the MNDM Geoscience Laboratory and Laurentian University (E. Rose, Quartec Mineral Developments Incorporated, personal communication, 2002).

EXPLORATION ACTIVITY

The year 2001 continued to be another banner year for exploration in the Sudbury District. Exploration activity by junior mineral exploration companies and individuals for platinum group elements (PGE) remained strong despite the levelling-off of record prices experienced toward the end of 1998 (see Table 4 and Figure 3).

Table 4. Platinum group element exploration activity in the Sudbury Resident Geologist District (2000-2001) (keyed to Figure 3).

Abbreviations

AEM ..... Airborne electromagnetic survey
AM ..... Airborne magnetic survey
ARA ..... Airborne radiometric survey
Beep ..... Beep Mat survey
Bulk ..... Bulk sampling
DD ..... Diamond drilling
DDH ..... Diamond drill hole(s)
DGP ..... Down-hole geophysics
GC ..... Geochemical survey
GEM ..... Ground electromagnetic survey
GL ..... Geological Survey
GM ..... Ground magnetic survey
GRA ..... Ground radiometric survey
Grav ..... Gravity survey
HLEM ..... Horizontal loop electromagnetic survey
HM ..... Heavy mineral sampling
IM ..... Industrial mineral testing and marketing
IP ..... Induced polarization survey
Lc ..... Linecutting
Met ..... Metallurgical testing
OD ..... Overburden drilling
ODH ..... Overburden drill hole(s)
PEM ..... Pulse electromagnetic survey
PGM ..... Platinum group metals
Pr ..... Prospecting
RES ..... Resistivity survey
Samp ..... Sampling (other than bulk)
Seismic ..... Seismic survey
SP ..... Self-potential survey
Str ..... Stripping
Tr ..... Trenching
UG ..... Underground exploration/development
VLEM ..... Vertical loop electromagnetic survey
VLFEM ..... Very low frequency electromagnetic survey

No	Township/Area	Company/Individual	Exploration Activity
	EAST BULL LAKE AREA		
1	Boon Township	a) Mustang Minerals Corp.	IP, GM, GL, Sampl, DD
		b) Falconbridge Ltd.	GL, Pr
		c) Freewest Resources Canada Ltd.	GM, IP, GL, Sampl, DD
		d) Sparton Resources Ltd.	GL

No	Township/Area	Company/Individual	Exploration Activity
2	Dunlop Township	a) New Millenium Metals Corp.	GL, GC
		b) Pacific Northwest Capital Corp.	GL, Sampl
3	Gerow Township	a) Falconbridge Explorations Ltd.	Sampl, GL, GC
		b) Freewest Resources Canada Ltd.	GM, IP, Str, DD, Pr
		c) Sparton Resources Ltd.	GL, GC
		d) Mustang Minerals Corp.	GM, DD, GC, Lc, IP
4	Gough Township	a) New Millenium Metals Corp.	GL, Sampl
		b) Pacific Northwest Capital Corp.	GL, GC
5	Lockeyer Township	a) Falconbridge Ltd.	GL, DD, GC
		b) Mustang Minerals Corp.	GC, GL, DD
6	Mandamin Township	a) Falconbridge Ltd.	DD
7	Porter Township	a) Ursa Major Minerals Inc.	GC, Sampl, DD
8	Shakespeare Township	a) New Millenium Metals Corp.	GC, DD, GL
		b) Pacific Northwest Capital Corp.	DD, GC
		c) Ursa Major Minerals Inc.	GL, Sampl
		d) Falconbridge Ltd.	DD, GC
9	Shebaning Township	a) Mustang Minerals Corp.	GL, GC, Sampl, DD
		b) Falconbridge Ltd.	GC
		c) Macdonald Mines Exploration	GL, GC, Sampl
	RIVER VALLEY AREA		
10	Crerar Township	a) Mustang Minerals Corp.	GL, Sampl, GM, Lc, IP
		b) Impala Platinum Holdings Ltd.	GL, Lc, Str
		c) Platinum Group Metals Corp.	GL, GC, Sampl
		d) Norcal Resources Ltd.	Lc, GL
		e) Aquiline Resources Inc.	GL, Sampl, GC
11	Dana Township	a) Pacific Northwest Capital Corp.	Mapping, Sampl, GL, GM, IP
		b) Aquiline Resources Inc.	GM, IP
		c) Bailey, R., Orchard, R. and Luhta, L.	DD, GC
		d) Mustang Minerals Corp.	GM, Lc, IP, GL, Sampl, GC
		e) West Capital Corp.	DD
		f) TRC Management & Consulting	Pr, Sampl, GC, GM
12	Davis Township	a) Solitare Minerals Corp.	Str, GC, Mapping
		b) Pacific Northwest Capital Corp.	GL, GC, Pr, Sampl, IP, Lc, GM
		c) Platinum Group Metals Ltd.	GL, Mapping, Lc, GC
		d) Goldwright Explorations Ltd.	TR, Str, GL, GC, IP, GM, VLFEM
		e) Luhta, L. and Gervais, L.	GC, GL

No	Township/Area	Company/Individual	Exploration Activity
13	Gibbons Township	a) Platinum Group Metals Corp.	GL, GC
		b) Solitaire Minerals Corp.	GL, GC
14	Henry Township	a) Platinum Group Metals Corp.	Lc, GC, Mapping
		b) Mustang Minerals Corp.	Lc, GM, GL, GC
		c) Impala Platinum Holdings Ltd.	Lc, GL, GC
		d) Aquiline Resources Inc.	GM, Lc
		e) Racicot, F.	GL, GC
15	Janes Township	a) Pacific Northwest Capital Corp.	GC, Sampl, DD
		b) Racicot, F.	GL, GC, DD
		c) Aquiline Resources Inc.	GM, Lc
		d) Gervais, L.	GL, GC, Mapping, Sampl
		e) Goldwright Explorations Inc.	DD, IP, VLFEM, GC, TR, Sampl, SP
		f) Brady, J.	GL, GC
16	Kelly Township	a) Solitaire Minerals Corp.	GL, GC, Sampl
		b) Pacific Northwest Capital Corp.	DD, IP, GM, Lc
		c) Goldwright Explorations Inc.	GL, Pr, GC, IP, Lc
17	Loughrin Township	a) Platinum Group Metals Corp.	GC, Sampl
		b) Aquiline Resources Inc.	GL, GC, Sampl
		c) Mustang Minerals Corp.	GC, GL, GM
18	McNish Township	a) Flag Resources (1985) Ltd.	GL, Mapping
		b) Pacific Northwest Capital Corp.	GC, Sampl, DD
19	McWilliams Township	a) Platinum Group Metals Corp.	GL, GC, Sampl
		b) Norcal Resources Ltd.	Lc, GL
		c) Solitaire Minerals Corp.	GL
		d) Mustang Minerals Corp.	GM, GL, GC
20	Pardo Township	a) Aquiline Resources Inc.	GM, IP
		b) Tenajon Resources Corp.	GL, Sampl, Mapping
		c) Pacific Northwest Capital Corp.	Lc, GL, GC, DD

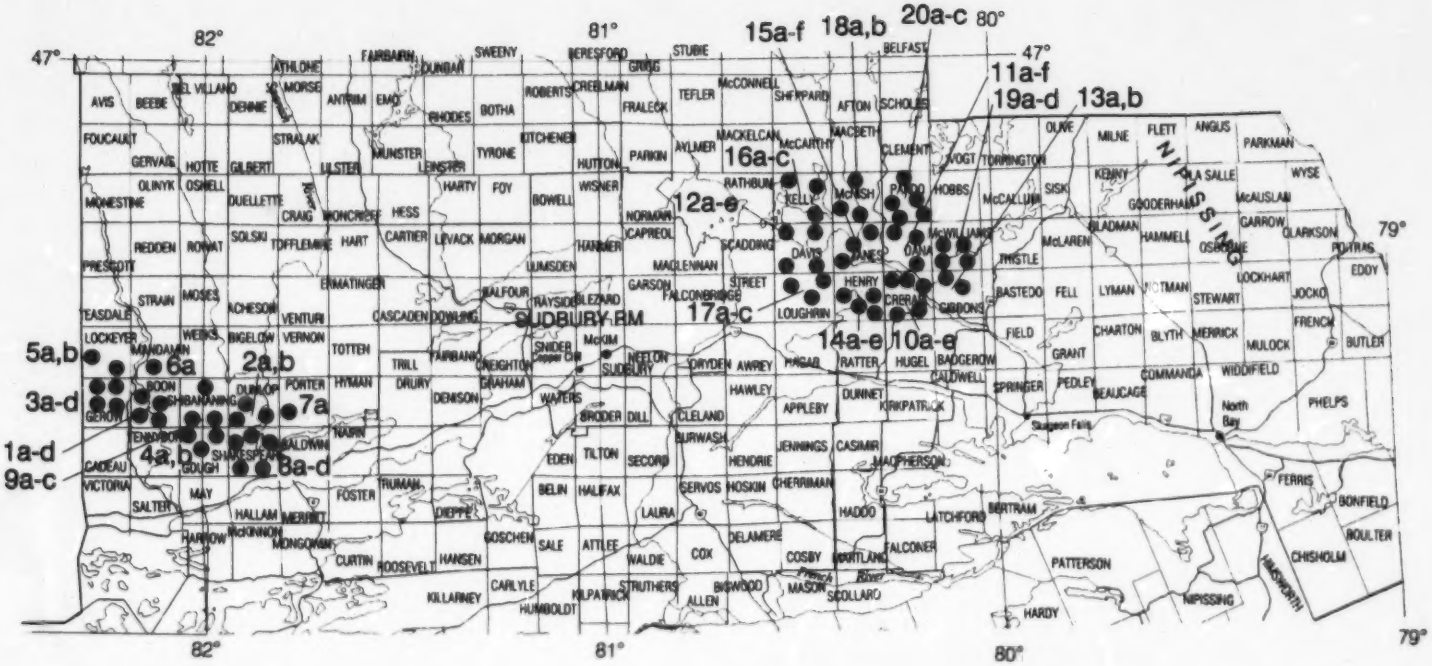


Figure 3. Platinum group exploration activity in the Sudbury Resident Geologist District in 2000-2001 (keyed to Table 4).

Aquiline Resources Incorporated

Aquiline Resources Incorporated expanded its property position in the River Valley area by entering into a letter agreement with prospectors to acquire 110 claim units in Henry and James townships. In addition, the company increased the size of its North Dana property in the River Valley area by entering into a letter agreement to acquire 16 claim units in McNish Township. These adjoin Aquiline's North Dana property to the west.

Aquiline Resources completed an initial 8 diamond drill hole program within the northeast section of its Ni-Cu-PGE River Valley project. The project is a joint venture with Mustang Minerals Corporation where Aquiline has the option to earn a 70% interest by spending $500 000 in exploration work over a three year period and making cash payments totaling $100 000. The 8 drill holes were part of a first phase reconnaissance style program and tested 5 of 15 IP chargeability anomalies defined by geophysical surveys. All holes were concentrated in the east half of the property in an area located immediately south of the Sturgeon River. The company has yet to drill test the remaining 10 IP anomalies that occur north of the river and to the west of the project. Two of the holes intersected low grade PGE and Au mineralization (Aquiline Resources Incorporated, News Releases, January 10, January 24, May 10, and June 5, 2001 and http://www.aquilineresources.com).

Aurora Platinum Corporation

Aurora Platinum Corporation explored for Ni-Cu-PGE mineralization in the Sudbury Structure with an emphasis on contact breccia, footwall breccia, and offset dike deposit types. The company holds the Foy and Footwall properties under option from Falconbridge Limited and, in addition, holds a 100% interest in the North Range property.

The Foy Project is located 30 km northwest of Sudbury along the "North Range" of the Sudbury Igneous Complex and is comprised of 2042 hectares of patented and unpatented mineral claims in both Foy and Bowell townships.

Aurora discovered nickel-copper mineralization 400 m below Nickel Lake within the Foy Offset Dyke adjacent to Inco Limited's Nickel Lake deposit. Hole NI-01-02 intersected a 16.5 m zone of nickel sulphides with narrower higher grade zones including: 1.5 m grading 1.2% Ni, 0.45% Cu, 0.25 g/t Pt, and 0.32 g/t Pd; 2.55 m grading 1.21% Ni, 0.55% Cu, 0.43 g/t Pt, and 0.44 g/t Pd; and 4.56 m grading 1.15% Ni, 0.96% Cu, 0.55 g/t Pt, and 0.64 g/t Pd. The company completed a downhole electromagnetic survey in diamond drill hole NI-01-02 and a strong off-hole conductor was detected to be centered about 500 m downhole depth and interpreted to be associated with more massive sulphides. Normally, offset dyke hosted deposits along the Sudbury Basin are narrow and of limited strike length, however they may extend to 1500 m depth resulting in substantial tonnage. Further drilling on the Nickel Lake Zone will concentrate on defining the full extent of this mineralization. Aurora has also completed a MEGATEM airborne magnetic and electromagnetic survey within portions of the Foy project. The results of the MEGATEM survey indicate that a conductive zone underlies all of Nickel Lake at depth giving a potential strike length of 400 m. Further drilling to be conducted on the Foy project will concentrate on defining the dip extensions of the Nickel Lake mineralization and also its strike length (Aurora Platinum Corporation, News Releases, August 2 and 14, 2001 and www.auroraplatinum.com).

Drilling of the Wisner zone within the Foy project was successful in intersecting nickel sulphides in diamond drill hole WI-00-05. Hole WI-00-05 was one of six deep geophysical holes drilled near the initial surface discovery in the Foy project made by Aurora. Two zones were intersected between 48.43 m to 51.25 m depths; results showed grading of 1.85% Ni, 0.25% Cu, 0.38 g/t Pt, and 0.41 g/t Pd; and 3.14 m grading 1.30% Ni, 0.30% Cu, 0.56 g/t Pt, and 0.68 g/t Pd. Six holes in this zone were surveyed using an electromagnetic downhole survey. Off-hole conductors were detected in four holes along a strike length of 600 m. The main zone appears to be at 150 m depth for these four holes. A second phase of drilling is planned in this area to define the limits of mineralization (Aurora Platinum Corporation, News Release, August 2, 2001).

The Footwall project, a joint venture between Aurora and Falconbridge, covers 1600 ha and is located northeast of Sudbury along the South Range of the Sudbury Igneous Complex. The property covers an 8-km strike length of Sudbury norite and sublayer rocks adjacent to the Falconbridge and Falconbridge East mines. Falconbridge, the project operator, completed a 63-line km UTEM ground geophysical survey prior to drilling three 1500 m diamond

drill holes in the footwall of the Falconbridge and Falconbridge East mines along a strike length of 1.2 km. Downhole electromagnetic surveys detected strong offhole conductors in all three holes at a depth of about 1000 m. The downhole data is presently being interpreted in preparation for further drilling. On the western edge of the property boundary near Inco's Ni-Cu-PGM Garson deposit, downhole electromagnetic surveys were completed on three drill holes. Two of these holes were near the extension of the Garson fault (controlling structure for the Garson deposit) and both had strong offhole conductors suggesting proximity to a sulphide body (Aurora Platinum Corporation, News Releases, February 8 and August 14, 2001).

The North Range Project, in the Sudbury Igneous Complex, is 100% owned by Aurora and is underlain by footwall rocks including extensive Sudbury Breccia. Fieldwork in this area resulted in the discovery of a number of mineralized Sudbury Breccia boulders and stockwork copper-nickel mineralization in footwall gneisses. The company recently completed a MEGATEM airborne magnetic and electromagnetic survey over a portion of the project area and defined two significant conductive zones, one near surface and one at a greater depth. The combined strike length of these two conductors is approximately 1300 m. A new discovery of offset-type quartz-diorite is associated with this mineralization and these conductors represent a substantial target for drill testing (Aurora Platinum Corporation, News Release, August 14, 2001).

Crowflight Minerals Incorporated

Crowflight Minerals Incorporated explored for platinum group metals in the Sudbury Basin. Its primary asset, the Kidd property, is located on the Worthington offset dike, southwest of the Sudbury Basin and was mined for nickel and copper in the 1960's by both underground and open pit mining methods. The initial deposits identified and mined along this offset dyke were close to or came to surface. Recent finds along the dike have been possible due to new geophysical methods that are capable of finding deposits starting at depth.

Crowflight Minerals has also completed several diamond drill holes at the Kidd Worthington Offset Dike property. The best intersection was found in diamond drill hole AER 01-13, and samples were assayed to be 0.54% Cu, 0.19% Ni, 0.01% Co, 0.10 g/t Pt, 0.7 g/t Pd, and 0.20 g/t Au. The property is approximately 1 km along strike from Inco's Totten deposit that contains 10.1 million t grading 1.5% Ni, 1.97% Cu and 4.8 g/t PGE.

Crowflight Minerals also completed an airborne EM and magnetometer survey over the Post Creek, Airport, and Foy Offset Dike properties (Crowflight Minerals Incorporated, News Releases, March 5, April 5, June 26, December 24/2001, http://www.crowflightminerals inc.com, and Inco Limited, News Release, January 18, 2001).

Falconbridge Limited

Falconbridge Limited announced that surface exploration drilling, approximately 2.7 km north of the Sudbury airport, discovered significant mineralization on the main contact of the Sudbury Igneous Complex and in the underlying footwall rocks consisting of brecciated granodiorite and Sudbury Breccia.

The assay results for a wedge cut from diamond drill hole MAC-100 (i.e. sample MAC-100A) are summarized in the following table. The intervals quoted are core length since true thickness cannot be estimated with any degree of certainty at this time.

Depth From (m)	Depth To (m)	Length (m)	Ni %	Cu %	Pt g/t	Pd g/t	Au g/t
			Contact zone				
1439.65	1446.05	6.40	2.36	1.79	Pending	Pending	Pending
			Footwall zones (5 zones)				
1577.10	1583.60	6.50	0.52	7.12	1.24	0.42	0.29
1597.60	1607.25	9.65	3.43	12.13	3.84	3.13	8.30
1619.50	1625.85	6.35	4.94	10.12	8.50	11.70	2.90
1631.65	1636.55	4.90	1.75	12.73	6.06	11.32	0.96
1638.75	1641.25	2.50	6.48	7.43	11.31	17.12	1.91
1656.85	1663.0	6.15	2.26	17.49	19.57	26.34	20.49

Borehole geophysical surveys have been completed in this hole. The data from both the contact and footwall zones provide encouraging indications for the potential of additional mineralization to the north, east and south of the hole. The original hole, MAC-100, intersected 1.89% Ni and 0.71% Cu over 0.1 m, at a depth of 1443 m, and a chalcopyrite vein in the footwall at a depth of 1561.2 m that assayed 0.26% Ni and 20.30% Cu over 0.3 m. MAC-100A was wedged due east at a dip of 75° beginning at a depth of 800 m in MAC-100. The mineralized intersections in MAC-100A are located 75 to 124 m away from MAC-100. Previous drilling in the immediate area is 340 to 700 m away.

This mineralization is located approximately 2 km southeast of Falconbridge's Nickel Rim deposit that hosts an inferred resource of 1.6 million t of 1.6% Ni, 10.1% Cu, 4.2 g/t Pt, 3.5 g/t Pd and 2.5 g/t Au. Two additional diamond drills had been moved onto the property as of January 2002 (Falconbridge Limited, News Release, November 28, 2001 and www.falconbridge.com).

Flag Resources (1985) Limited

Flag Resources (1985) Limited released results of follow-up diamond drilling on the Campsite gold and copper zone within the Wanapitei magnetic anomaly, near Wolf Lake in Mackelcan Township. This zone was discovered by Flag's diamond drill hole WL83-28 at a 74.5 foot depth and averaged 1.13 g/t Au and 2.50% Cu. A sample taken between the 148 and 196 feet depth levels assayed 1.5 g/t Au and 3.60% Cu per ton.

Flag is currently exploring this 100% owned gold-copper zone. Seven holes were drilled in 2001, of which four were both logged and assayed. The purpose of the exploration program was to confirm previously drilled targets and possibly to expand the size of the known mineralized zone. Holes WL01-1, WL01-2, WL01-3 and WL01-4 were drilled near existing drill holes to confirm the intersections and assays previously reported.

Results of follow-up diamond drilling to the Campsite Gold-Copper zone follows:

1. Diamond drill hole WL01-1, drilled to vertical depth of 208 feet and located 14 feet northeast of WL83-28, intersected 4.7 feet of 6.19 g/t Au, from 196.8 to 201.5 feet, at the outer eastern edge of the gold-copper zone.

2. Diamond drill hole WL01-2, drilled to a vertical depth of 205 feet and located 7 feet west of WL83-28, had the following intersections: 123-129.5 feet – 6.5 feet of 2.91g/t Au and 0.46% Cu; 134.6-178.2 feet – 43.6 feet of 1.64 g/t Au and 2.25% Cu; and 183.2-193 feet – 9.8 feet of 2.10 g/t Au and 1.29% Cu.

3. Diamond drill hole WL01-03 was drilled to a vertical depth of 200 feet and is located 19 feet west and 13 feet south of WL83-28. The hole is at the same location as WL90-3, which intersected 73.5 feet of 17.7 g/t Au or 9.1 g/t Au, when cut to 1 oz. The new hole intersected 74.1 feet averaging 5.11 g/t Au and 0.38% Cu, from 99.8 to 173.9 feet.

4. Diamond drill hole WL01-04 was drilled due north at 70° to a depth of 200 feet and located 52 feet south, 20 feet west of WL83-28. It is at the same location as WL90-1, which had a 63 foot intersection averaging 8.1 g/t Au from 101 to

164 feet. The new hole intersected 82 feet averaging 8.50 g/t Au and 0.81% Cu from 99.2 to 181.2 feet (Flag Resources (1985) Limited Exploration, press release, November 01, 2001).

Freewest Resources Canada Incorporated and Sparton Resources Incorporated – Folson Lake PGM-Cu-Ni Property

Freewest announced results of the remaining five drill holes that were completed in 2000 at their joint venture Folson Lake property (first 17 holes reported on by Meyer et al. 2001). The Folson Lake property totals 320 ha and is located in Gerow Township, 80 km west of Sudbury. A total of approximately 2500 m of drilling was completed in 22 holes. The remaining five holes all intersected mineralization ranging from 0.98 g/t Pt-Pd-Au over a core length of 4 m to 1.96 g/t Pt-Pd-Au over a core length of 24 m. The intersections also contain low copper and nickel values (Freewest Resources Canada Incorporated, press release, January 11, 2002 and http://www.freewest.com).

MacDonald Mines Exploration Limited – East Lobe Claims in the East Bull Lake Intrusive Complex

MacDonald Mines Exploration Limited announced that the Canadian Venture Exchange has accepted for filing the company's option to acquire the East Lobe claims in the East Bull Lake intrusive complex currently undergoing intensive exploration for PGE mineralization. The 29 claim unit property covers 464 ha at the eastern end of the East Bull Lake Intrusion in Shibananing Township, adjacent to the western end of the Agnew Lake mafic intrusion. The company will have the option, having issued 750 000 of its shares to the optionors, of earning a 60% operating interest by completing $170 000 of exploration work over 3 years and making cash payments of $40 000. An additional 40% interest may be acquired for further exploration work of $150 000 and a cash payment of $28 000 in year four. The optioners will retain a 2% net smelter royalty (MacDonald Mines Exploration Limited, News Release, July 13, 2001 and www.macdonaldmines.com).

MacDonald Mines Exploration Limited, Falconbridge Limited and Impala Platinum Limited – Casson Lake Property

MacDonald Mines Exploration Ltd., Falconbridge Limited and Impala Platinum Ltd. have reached agreement in principal to create a joint venture for the exploration and development of the Casson Lake PGE property near Whitefish Falls. Under terms of the proposed agreement, Falconbridge and Impala must pay $400 000 and incur $2 500 000 of exploration expenditures on the Casson Lake PGE property prior to March 20, 2004 in order to earn a 50% joint-venture interest. Upon creation of the joint venture, Falconbridge and Impala will have a further option to acquire an additional 20% interest in the Casson Lake property joint-venture by completing, at their cost, a bankable feasibility study and guaranteeing production financing on behalf of the joint-venture. The transactions are subject to the completion of definitive agreements between the parties (MacDonald Mines Exploration Limited, News Release, September 20, 2001).

Mustang Minerals Corp. and Falconbridge Limited – East Bull Lake PGM Property

The East Bull Lake PGM property is located 80 km west of Sudbury and covers over 600 mining claim units. Mustang holds a 100% interest in the claims subject to net smelter royalties and also has a joint venture agreement with Falconbridge Limited covering the property. In November 2000, Falconbridge made a $1 million private placement to Mustang that allowed them to have an option to earn a 50% interest in the East Bull Lake property by funding an additional $5 million in exploration expenditures over a period of 4 years. Their claim block at East Bull covers approximately 90% of the East Bull Lake gabbro-anorthosite layered intrusion.

Mustang has been actively exploring this property since the fall of 1998. From the period November 2000 to November 2001 the exploration budget was $850 000. The geological program included an airborne geophysical

survey, additional mapping, sampling, trenching and drilling. A joint exploration team between Falconbridge and Mustang has been formed, with Mustang serving as the operator of the program.

An important area of exploration at East Bull Lake is the Bullfrog target area. It represents 700 m of a 20 km stretch along the southern margin of the East Bull Lake Intrusion and surrounding "country" rocks. Geological mapping and sampling indicated the presence of values of platinum (Pt), palladium (Pd), and gold (Au) combined up to 16.48 g/t over a strike length of 700 m. An induced polarization (IP) geophysical survey outlined a broad response immediately south of these values. To date, eleven widely spaced diamond drill holes have tested this area, and the most significant drill results came from the Bullfrog target area on the southern contact of the intrusion (grades of up to 2.53 g/t (Pt+Pd+Rd+Au), 0.13% Cu and 0.08% Ni over 12 m were recorded).

In total 32 holes have been drilled in three locations on the property, testing less than 5% of the horizon prospective for PGM (www.mustangminerals.com).

Mustang Minerals Corp. and Impala Platinum Holdings Limited (Implats) – River Valley PGM Property

The Mustang Minerals River Valley property includes over 600 claim units covering 28 km of prospective stratigraphy along the north and south margins of the River Valley gabbro-anorthosite complex. The property is immediately south of the Pacific North West Capital/Anglo American Platinum Corporation Limited's River Valley joint venture. Impala Platinum Holdings Limited (Implats) can earn a 60% interest in the property by funding C$6 million of exploration expenditures over 5 years and making cash payments to Mustang of $255 000 over 4 years. The joint venture deal was signed in December 1999.

Recent fieldwork and a mineralogical study have confirmed the existence of two distinct types of PGM mineralization in the intrusion. The Inclusion Bearing Chaotic Zone (IBCZ) consists of PGM enriched sulphide mineralization hosted by a complex sequence of layered gabbroic rocks associated with mafic to ultramafic inclusions. The olivine gabbro-norite layer contains significant PGM+Au mineralization in a sulphide-poor horizon situated stratigraphically above the IBCZ.

Recent trenching on the IBCZ returned channel sample grades of 1.70 g/t PGM+Au over 3.0 m. Additional mineralization within the IBCZ was encountered 1.4 km southeast of this trench in previously released drill holes MR01-30 (1.47 g/t PGM+Au over 22 m) and drill hole MR01-31 (1.77 g/t PGM+Au over 17 m). Exploration to date has confirmed that the IBCZ has a total strike length of approximately 4.0 km on the north grid.

The sulphide-poor, olivine gabbro-norite layer has been identified in two trenches located 950 m apart. Channel sampling in the first trench returned 8.38 g/t PGM+Au over 1.0 m. sampling in the second trench returned 4.11 g/t PGM+Au over 2.0 m, including 6.86 g/t PGM+Au over 1 m. The olivine gabbro-norite layer has also been identified in at least three of the phase 1 drill holes with highest values found in holes MR01-12 (9.15 g/t PGM+Au over 1.0 m) and MR-01-20 (8.19 g/t PGM+Au over 1.0 m). The strike length along which this layer has been identified has been expanded to over 2.1 km. As a follow-up to initial encouraging results, Implats funded an additional exploration budget of $485 000 to complete the remainder of scheduled fieldwork by the end of October 2001.

A total of 66 widely spaced reconnaissance diamond drill holes totaling 17 002 m have now been completed on the property. The 49 holes drilled on the north contact were spaced along a 4.7- km strike length. The highest values were found in MR-34 and showed 0.44 g/t PGM+Au. Assay results for holes MR41-49 on the north margin are pending.

Along the south margin, 17 holes (MRS-01 to MRS-17) were drilled over a strike length of approximately 2.6 km. Assays from stratigraphic holes MRS1-13 contained sporadic values. The highest grade obtained was in Hole MRS-6 (2.78 g/t PGM+Au over 1.5 m). Assays from holes MRS14-17 are pending (Mustang Minerals Corp., News Releases, July 12, 2001 and October 16, 2001 and www.mustangminerals.com or www.implats.co.za).

Mustang Minerals Corp. – Truman Platinum Group Metals Property

Mustang Minerals entered into an option agreement to earn a 100% undivided interest in the Truman Platinum Group Metals (PGM) property located 40 km southwest of Sudbury, Ontario. The property consists of 158 mining claim units (2528 ha). Mustang has negotiated the further right to option an adjacent 110 mining claim units (1760 ha) prior to December 15, 2001 based on Mustang's assessment of the property's potential.

The property is underlain by a large part of the Lac Panache gabbro intrusion, which is 20 km long and up to 2.0 km wide on the Truman property. The intrusion is located within the Huronian-Nipissing Magmatic Belt (HNMB) of rocks, which includes PGM enriched intrusions of the East Bull Lake suite and younger PGM enriched intrusions of Nipissing gabbro.

Fieldwork performed by Mustang as part of the due diligence process has identified magmatic sulphides on the Truman property within a coarse grained crystalline "contaminated" zone, which has been traced by Mustang over a minimum strike length of 1.5 km. To date assays have yielded from trace up to 2.28 g/t combined platinum-palladium-gold (Pt-679 ppb, Pd-1426 ppb and Au-179 ppb) (News Release, September 19, 2001 and www.mustangminerals.com or www.implats.co.za)

Pacific North West Capital Corp. (PFN) and Anglo American Platinum Corporation Limited (Anglo Platinum) – River Valley Project

Pacific North West Capital Corp. (PFN) has drilled a total of 138 holes in four phases on the River Valley property. Mineralization at Dana Lake is divided into two zones, both of which remain open. The Dana Lake South zone has been traced for 300 m along the River Valley intrusion contact and to a depth of 290 m. The Dana Lake North zone has been traced for 500 m along strike and to a depth of 200 m. Lismer's Ridge, about 2 km to the southeast, is also a contact-mineralization target that has been traced over a strike length of about 500 m.

PFN reported results of an independent mineral resource estimate by Derry, Mitchener, Booth and Wahl Consultants to be 2.7 million t of resources grading 0.35 g/t Pt, 1.04 g/t Pd and 0.07 g/t Au. This translates into 142 000 oz Pt, 424 000 oz Pd, and 27 000 oz Au for a grand total of 593 000 ounces of those metals. A Pt-Pd cutoff grade of 0.7 g/t was used.

A Phase 5 drill program, incorporating an additional 20 000 m (65 000 ft) of diamond drilling is ongoing. The program is designed to expand the existing mineral resources at Dana Lake and Lismer's Ridge and to locate additional mineral resources to the south. On November 6th, 2001, PFN announced that its budget for the next twelve months of $2 357 200 had been approved by Anglo Platinum. The River Valley project is funded by an agreement with Anglo Platinum, which has earned a 50% interest in River Valley and various other PFN properties in the Sudbury area by paying $300 000 for the option and spending $4 million on exploration. Anglo American Platinum can further increase its interest to 60% by completing a feasibility study, and to 65% by financing the property through to production (Pacific North West Capital Corp., News Release, November 22, 2001).

Pacific North West Capital Corp. (PFN) New Millenium Metals Corporation and Anglo American Platinum Corporation Limited (Anglo Platinum) – Agnew Lake Project

In late June of 2001, PFN announced that Anglo Platinum would be funding the Agnew Lake project. The Agnew Lake property, located 60 km west of Sudbury, is currently under option to PFN by New Millennium Metals Corporation. Anglo Platinum may earn up to a 60% interest in the Agnew property by funding it through to production. Like River Valley, the Agnew property is underlain by a layered mafic intrusion that has the potential to host significant platinum group metal mineralization. A $1.18 million exploration program is currently in progress, which consists of geological mapping, prospecting and IP surveys, to be followed by diamond drilling (Pacific North West Capital Corp., News Release, September 19, 2001).

Ursa Major Minerals Incorporated

Ursa Major Minerals Incorporated announced that core drilling will be initiated on the company's platinum group metal (PGM) property located in Porter Township, 50 km west of Sudbury. The company initially plans to drill two holes to test high-grade PGM mineralization hosted in a mafic intrusion (Ursa Major Minerals Incorporated, News Release, October 26, 2001 and www.ursa-major.com).

Wallbridge Mining Company Limited

Wallbridge Mining Company Limited holds several properties in the Sudbury District, either wholly owned or joint ventured, covering 212 km^2.

The company signed an option agreement with Falconbridge Limited for the Parkin, Frost Lake, Wisner, and Sheppard properties. Terms of the agreement accord Wallbridge the right to earn a 50% interest in the four Falconbridge properties by spending $2 million over a five-year period. The expenditure was reached two years ahead of requirements and the Falconbridge joint venture agreement was finalized ahead of schedule. Wallbridge, the operator, now owns 50% of the properties under the joint venture agreement and will increase its percentage of ownership by providing 100% of the exploration funding until year-end.

Wallbridge has been engaged since August 2000 in three diamond drill programs on the Parkin Property, which are as follows: 1) delineating a near surface mineralized zone on the Parkin property in a geological structure called the Parkin Offset Dyke. Wallbridge completed 56 diamond drill holes totaling 7008 m in the Parkin definition drilling program. The definition has been successful in demonstrating continuity of mineralization. To date, diamond drilling totaling 13 000 m in 97 holes have been completed on the Parkin property. Mineralized zones are open at depth and to the north. Pulse EM geophysics indicates the presence of an untested conductive body located immediately to the south (News Release, January 15, 2001); 2) A series of vertical drill holes, drilled down the dike to a depth of approximately 1200 m, were completed. These holes are designed to explore for potential mineralization and to provide a geophysical platform for subsequent down-hole electromagnetic (UTEM) surveys in order to test for conductive sulphide bodies at depth (News Release, March 5, 2001); 3) Wallbridge advanced the exploration program on the Parkin property with a series of drill holes that step out from a newly recognized mineralized zone. Wallbridge identified this new zone in a news release dated March 5, 2001. Ten diamond drill holes totaling 1388 m were drilled and assayed. Significant mineralization was intersected in eight of these holes (Wallbridge Mining Company Limited, News Releases, January 15, April 11 and June 7, 2001).

As part of its winter/spring exploration program, Wallbridge completed 11 diamond drill holes totaling 2976 m on the Frost Lake property. Holes WC-04 to WC-08 were drilled to test chargeability anomalies defined during a winter IP geophysical survey. All of these holes intersected disseminated sulphides indicative of 'dispersion halo' type mineralization. The widespread presence of precious metals indicates that this sulphide is 'Sudbury-type' mineralization. Holes WC-2, WC-03 and WC-9 to WC-12 were drilled to obtain more information on the geometry of the embayment at depth. Hole WC-09 was successful in identifying the back of the embayment, along with associated sulphide mineralization. This mineralization was encountered over 2.7 m at a vertical depth of approximately 30 m. Metal values over this interval include 1.53% Cu, 0.26% Ni and 1.50 g/t PGM+Au. Company geologists have discovered a new surface mineral showing at the back of the previously identified embayment structure. Grab sample assays ranged up to 5.35 g/t total PGM (Wallbridge Mining Company Limited, News Releases, June 7, 2001).

Initial fieldwork on the Wisner property, located approximately 10 km west of the Parkin property, has resulted in the identification of an embayment structure larger than previously recognized. Several widespread sulphide occurrences have been identified in this early stage of work. Assaying of initial grab samples yielded metal values of up to 2.23% Cu, 0.07% Ni and 1.99 g/t PGE. The identification of near-contact embayment rocks and their extensive nature greatly enhance the exploration opportunities at Wisner.

Diamond drilling is currently underway on the Frood-Stobie Northeast property. Recent geological mapping led to the identification of the Frood Sudbury Breccia belt at the east end of the property. Two pods of mineralized quartz

diorite were discovered within this part of the breccia belt. The current diamond drill hole is being completed in close proximity to the newly identified quartz diorite pods. Upon completion, this diamond drill hole will be tested with a downhole electromagnetic survey to locate any conductive (sulphide) material in the area (Wallbridge Mining Company Limited, News Release, June 1, 2001).

Wallbridge announced it has acquired an Exploratory License of Occupation (ELO) for 843 ha, covering all of the land under the waters of Windy Lake. This property covers 4.8 linear km of the contact of the Sudbury Igneous Complex (SIC) and a $2.3 million exploration program is planned for 2002. Windy Lake is located in the North Range of the SIC, approximately 3 km southwest of Levack area mines. In the winter 2000/2001, Wallbridge conducted an audio magneto-telluric (AMT) survey over part of Windy Lake to explore for mineralization below the lake. This survey was successful in locating two conductive zones, as well as delineating a contrast in resistivity. These results combined with geological evidence are believed to define the outline of the SIC contact and an embayment structure within it (Wallbridge Mining Company Limited, News Release, December 4, 2001 and www.wallbridgemining.com).

RESIDENT GEOLOGIST STAFF AND ACTIVITIES

In 2001, M. Cosec, District Geologist, staffed the Sudbury office. District Support geologists (on an acting basis) were C. Stephenson, B. Heino, and J. Wood. Summer Experience Program students L. Sikora and C. Marcil ably provided assistance in the field and office.

B. Heino, L. Sikora, and C. Marcil were instrumental in creating a digitized index of office material in support of the "Super-Library" initiative. C. Stephenson and B. Heino transferred office databases into a single, user-friendly Access® file database. B. Heino also verified data in the Mineral Deposit Inventory database.

P. Chance and W. Mackasey worked in the office through the field season as part of the Abandoned Mines Inventory program. These files are available to the public in hard copy accompanied by videos in VHS format.

The District Geologist continued service as a councilor on the Association of Professional Geoscientists of Ontario as well as mineral sector representative on the area team of the Regional Economic Development Branch, MNDM Northern Development Division. He was also appointed to the Paleoproterozoic Working Group, along with A. Fyon (OGS), M. Easton (OGS), M. Lesher (Laurentian University), R. James (Laurentian University), and R. Keayes (Laurentian University).

M. Cosec attended the annual Prospectors and Developers Association of Canada meeting in Toronto, the Ontario Prospectors Association Northeast Regional Geoscience Symposium in Sudbury, and the Laurentian University/Society of Economic Geologists PGE Conference, also in Sudbury.

Field trips of the Sudbury Structure were presented to the University of Ottawa, Queen's University, and The Bishop Strachan School Earth Science Departments.

During the MNDM sponsored "Wellness Days" events, 4 field trips of the "Granite Trail" in Killarney Provincial Park were provided to the Sudbury, Manitoulin Island, and Parry Sound area staff.

The Minister of Northern Development and Mines, Honourable D. Newman, and Deputy Minister C. Clark, were provided a late winter tour of a diamond drilling program in the search for PGE in the River Valley area (courtesy of Pacific North West Capital Corporation).

Office staff conducted visits of the following properties:

Victoria Mine, Denison Township (Ni, Cu, PGE);
Poupore Property, Lorne Township (Ni, Cu, PGE);
Krieger Property, Baxter Township (dimensional stone);
Tres-Ores Resources Corporation, Hamell Township (kimberlite indicator minerals);

Manex Granite Corporation, Casimir Township (dimensional stone);
J. Brady/R. Komarchka properties, McConkey Township (PGE, dimensional stone);
J. Brady Property, Hardy Township (PGE, dimensional stone);
Inco Limited, Frood open pit mine (Ni, Cu, PGE);
Falconbridge Limited, Fraser and Strathcona mines [underground] (Ni, Cu, PGE);
Inco Limited, Copper Cliff North Mine [underground] (Ni, Cu, PGE);
Inco Limited, Clarabelle Mill;
Mialex/R. Fielding Property, Waters Township (Ni, Cu, PGE);
Garson Resources Limited, McLennan Township (Au, Si);
Fielding Property, Louise Township (Si); and
P. Laakso properties, Snider Township (Ni, Cu, PGE), and Snider Township (Cu, Pb, Zn, Ag).

The Sudbury office receives copies of the following publications that are available to the public: The Northern Miner, Canadian Mining Journal, Canadian Institute of Mining, Metallurgy and Petroleum Bulletin, Economic Geology, Ontario Prospector, and Nickel magazine.

RECOMMENDATIONS FOR EXPLORATION

Platinum Group Elements in the "Nipissing – Huronian Magmatic Belt"

Exploration for platinum group elements has been the dominant activity in the Sudbury District for the past three years. The majority of work has been conducted on differentiated mafic intrusive rocks of the East Bull Lake suite that include the River Valley, Agnew, and East Bull Lake complexes (approximately 2.45 Ga). Some work was also carried out on Nipissing gabbro rocks (2.22 Ga), mainly east of Wanapitei Lake.

Much of this ground is held in good standing under the Mining Act as unpatented claims, leases, and patents. Opportunities for land acquisition on ground underlain by these mafic intrusive rocks are limited. However, marginal areas of these mafic intrusive rocks may also be prospective for platinum groups elements. These include, but are not necessarily restricted to, the following:

i. mafic intrusive rocks north of the East Bull Lake complex in Lockeyer and Mandamin townships;
ii. mafic intrusive rocks, particularly those currently considered as Nipissing gabbro west of Sudbury to Elliot Lake and hosted in Huronian Supergroup metasedimentary rocks of the Penokean Fold Belt;
iii. Archean mafic intrusive rocks hosted within the Benny greenstone belt;
iv. mafic intrusive complexes hosted within the Central Gneiss Belt (i.e. the Whitestone, Arnstein and Eau Claire anorthosites, as well as Mattawan and McConkey townships);
v. areas within the Grenville Front Tectonic Zone east of the River Valley complex (Flett, Angus, and Parkman townships).

Other targets to consider are previously documented Ni-Cu occurrences whose concentrations are considered uneconomic, yet may hold high potential for PGE. There are two distinct styles of mineralization that are enriched in PGE, Ni, Cu, Au, and Ag:

i. disseminated magmatic sulphides, particularly within inclusion leucogabbronorite; and
ii. disseminated, to massive, structurally controlled sulphides.

Sudbury Igneous Complex – Offset Dike Structures (Ni-Cu-PGE)

The nickel, copper, and platinum group metal ores of the Sudbury Igneous Complex (1.85 Ga) are found in four distinct environments:

(i) Contact (e.g., Levack, Garson, Falconbridge mines);

(ii) Embayment (e.g., Creighton, Frood? mines);
(iii) Footwall (e.g., McCreedy West, Strathcona mines);
(iv) Offset Dike (Copper Cliff North & South, Totten mines).

Exploration activity for undiscovered offset dikes of the Sudbury Igneous Complex has been strong as of late. Recent discoveries by Inco Limited of the Kelly Lake deposit on the Copper Cliff Offset and the Totten Mine on the Worthington Offset suggests that prospective ground includes areas underlain by Archean Algoman granitic and migmatitic rocks, particularly north and west of the Sudbury Igneous Complex. Targets are offset dikes and footwall zones that are typically enriched in Ni, Cu, Pt, Pd, and Ag.

Wallbridge Mining Company Limited is actively exploring for Ni, Cu, PGE, Au, and Ag at the former Jonsmith Mines Limited Milnet Mine in Parkin Township. The property is hosted by the Parkin Offset (Whistle Offset), which shows no surface expression at its origin near the Whistle Mine.

A mineralized extension of the Worthington Offset was recently discovered west of the Totten Mine in an area previously mapped as diabase.

North of the North Range of the Sudbury Igneous Complex, several offset dikes lacking surface expression have recently been defined by airborne and ground geophysical surveys, as well as diamond drilling.

Offset dikes are composed of fine- to medium-grained norite with inclusions of mafic to ultramafic composition. The inclusions vary in size from several millimetres to greater than one metre. These dikes may either be mineralized or unmineralized; those that are mineralized display a characteristic pockmarked weathered surface that distinguishes them from other types of dikes. The commonly weathered minerals are usually pyrrhotite and chalcopyrite.

Geophysical surveys (magnetic, Magneto-Telluric), as well as prospecting and geological surveys of previously mapped mafic dikes in the West and North ranges of the Sudbury Structure, may prove beneficial to the discovery of new offset dike orebodies in a century-old mining district.

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Metric Conversion Table

Conversion from SI to Imperial			Conversion from Imperial to SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 023	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.307 951	cubic yards	1 cubic yard	0.764 554 86	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
		MASS			
1 g	0.035 273 962	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 747	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 622 6	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311 3	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 90**	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

	Multiplied by	
1 ounce (troy) per ton (short)	31.103 477	grams per ton (short)
1 gram per ton (short)	0.032 151	ounces (troy) per ton (short)
1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in co-operation with the Coal Association of Canada.